

AN EXPERIMENT TO DETERMINE THE VALUE OF ASSIGNED
HOMEWORK IN GRADE IX SOCIAL STUDIES

BY

JOHN ROLAND POWELL


Sept. 1959

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AN EXPERIMENT TO DETERMINE THE VALUE OF ASSIGNED
HOMEWORK IN GRADE IX SOCIAL STUDIES

A DISSERTATION
PRESENTED TO
THE FACULTY OF GRADUATE STUDIES
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IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE
MASTER OF EDUCATION

BY
JOHN ROLAND POWELL

SEPTEMBER 1959

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ABSTRACT

Educators have yet to reach agreement concerning the merits of homework. Evidence of this is found in the many conflicting articles written on the subject in educational publications. Yet, experimental studies on homework have been few and they, too, have produced conflicting evidence.

This study attempted, through the experimental method, to determine whether students who do homework in grade IX social studies learn more factual knowledge than those who do none. Gains on final tests which had been previously written as pre-tests were used to measure learning by the control and experimental groups. Minor aims of the study were to determine the effect of intelligence and sex on the benefits derived from homework and to evaluate homework as a factor in over-achievement and under-achievement.

The sample, made up of 266 students and six teachers, was drawn from four schools in the city of Edmonton.

Results show that students receiving homework did gain more factual knowledge, but the difference was less than might have been expected. No difference in benefits to boys and girls was found. Bright students benefited less from homework than did those of average and low ability, and the greatest benefits were to average ability students.

CHAPTER I

FORMULATION AND DEFINITION OF THE PROBLEM

This study was concerned with the effect of regular homework assignments upon the acquisition of factual knowledge. Specifically it tried to answer this question: Do students in Social Studies IX learn more if they receive regular homework assignments?

The subject matter for the experiment was taken from Units II and III of the grade IX Social Studies Course of Studies for Alberta.

Unit II

1. Organization and Regulation of Labor.
2. Historical Background of the Regulation of Working Conditions.

Unit III

1. Movements of Peoples To and Within the Americas.

The experiment, involving six teachers and nine grade IX classes, was conducted during the 1958-59 school year.

A review of pertinent studies and articles appearing in educational publications revealed that, although this problem has been scrutinized frequently, authorities are still unable to agree whether it is a good practice or a bad one.

It was not the purpose of this experiment to test the validity of all the arguments put forth concerning the value of homework. In fact, many of the values claimed cannot easily be measured objectively. This quotation from the Elementary School Journal¹ outlines four broad criteria which might be applied in determining the worth of homework:

1. Effect on mastery of subject matter and tool skills that are measured by standardized tests.
2. Effect on children's non-school learnings including experiences both good and bad.
3. Effect on morals, character and sense of responsibility.
4. Effect on freedom, happiness and opportunity to get worthwhile experiences during the evenings.

This experiment was limited to testing one of the most widely supported outcomes of homework: an increased acquisition of factual knowledge. Within even this limitation several influencing factors soon became evident:

1. Did assigning of homework produce equal results for children of different intelligence levels?
2. Did boys and girls obtain equal benefit from doing homework?
3. Was homework a factor in over-achievement and under-achievement by certain students?

¹
C. C. Crawford and Jacob A. Carmichael, "The Value of Home Study," Elementary School Journal, 38(November, 1937), p. 194.

4. What was the value of homework in retention of factual knowledge over an extended period of time?
5. How did the kind of homework affect the outcomes?
6. Did the teacher's attitude toward homework affect the benefit derived from it?
7. What was the effect of the home facilities on the value derived from homework?
8. How did the total homework load bear on the results obtained?
9. Did the quality of the classroom experience determine the need for homework?
10. Are there any long-term values in homework?
11. What is the effect of homework when children are taught how to study?

In spite of their importance in reaching a valid answer to the value of homework, this study did not attempt to answer all these questions.

Furthermore, the complete control of all factors which can be achieved in laboratory experiments was not possible in a study of this nature. However, the "rotation-group" technique employed in the experiment did furnish a measure of control in these factors mentioned above.

The first four factors can be measured by objective methods and seem basic to any study of the homework question. This study, therefore, attempted to reach a valid answer to these four only.

CHAPTER II

A REVIEW OF RELATED LITERATURE AND RESEARCH

A study of the Education Index covering the years from 1932 to 1958 showed that homework, or homestudy, has received considerable attention from writers in the field of education. Yet, as T. J. Foran noted in his study, "Experimental studies of homework have been less numerous than would be expected from the attention given the problem in other ways."² This writer's search of the related literature supports the above quotation.

A review of the available literature revealed points of view ranging from claims that homework is an indispensable supplement to school instruction, to the charge that it is an unnecessary and even highly undesirable practice. The reasons given to support these inconsistent and varied claims are even more numerous. Homework is supported and attacked for many reasons.

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T. J. Foran, and Sister Magdalene Marie Weber, "An Experimental Study of the Relation of Homework to Achievement in Arithmetic," Mathematics Teacher, 32(May, 1939), p. 212.

Benefits most frequently claimed:

1. It develops self-reliance on the part of the student.
2. It encourages student responsibility.
3. It is necessary to practise new skills.
4. It increases retention of factual knowledge.
5. It prepares students for necessary homework in high school, college, and vocation.
6. It provides an enrichment of the school program.
7. The brain needs exercise to grow and become efficient.
8. No homework leads to a lazier attitude toward intellectual effort.
9. The school day is not long enough.
10. The student learns to study independently.
11. Homework helps combat juvenile delinquency.

Arguments opposing homework:

1. The school day is long enough and the student needs the time for other activities.
2. It hinders good pupil-teacher relationships.
3. Students often practise bad study habits.
4. It is usually done under unfavorable conditions.
5. Faulty techniques sometimes are practised.
6. Homework interferes with the student's leisure time activities.

7. Homework is sometimes used as punishment.

M. A. Steiner³ attempted, through the experimental method, to determine the value of homework assignments by measuring gains in achievement. A class of thirty-nine pupils in grade seven were matched according to mental age and achievement. Eighteen were given homework in arithmetic while the other eighteen were given homework in English. Both groups were given the same work in class and were informed of the experiment.

Considerable variations and inconsistencies were found in the average gains of the two groups. Nevertheless, Steiner concluded that:

1. Homework assignments of a drill nature in both arithmetic and grammar tended to accelerate learning.
2. Homework assignments in arithmetic were of more benefit than in English.
3. When classroom instruction is not modified along with the homework, chances of passing are not increased by homework.
4. Homework designed to keep average students busy thirty minutes daily is not too burdensome in proportion to the benefits derived.

³
M. A. Steiner, "Value of Homework Assignments,"
School and Society, 40(July 7, 1934), pp. 20-24.

Another experiment which reported favorably on the value of homework was conducted by William Ewart Anderson⁴ in the Dunbar High School, Okmulgee, Oklahoma. The purpose of his study was to determine the effect of homework assignments upon achievement in Junior High School subjects. Two grade eight classes which had the same teachers in English, social studies, and mathematics were used as experimental and control groups. Scores on follow-up tests favored the homework group. Anderson drew the following conclusions from this experiment.

1. Homework is a factor in improving scholarship.
2. Pupils who have homework are more consistent in their achievements than those who do not.
3. Homework is equally effective in English, social studies, and mathematics.
4. Average and dull students who receive homework assignments are much more successful than those who do not.
5. Bright students do not gain as much benefit from homework as the dull and average.

⁴William Ewart Anderson, "An Attempt Through the Use of Experimental Techniques to Determine the Effect of Homework Assignments Upon Scholastic Success," Journal of Educational Research, 40(October, 1946), pp. 41-43.

T. J. Foran of the Catholic University of America, Washington, and Sister Magdalene Marie Weber of the Visitation Convent, Detroit, Michigan,⁵ conducted a more extensive experiment in seven parochial schools during the 1935-36 school term. Half the classes had regularly assigned homework for the first term while the other classes were given none. At the end of the first semester the classes exchanged roles. The "rotation" technique employed by Foran and Weber is essentially the same one as was used in this thesis.

This rotation procedure was employed since it furnished better control over several factors than would have been possible through other procedures. The rotation method dispenses with the necessity of equating the classes in all particulars since each class spent the same amount of time as a homework class and as a control class.⁶

The general intelligence level of the two groups was equal, and the initial scores did not differ significantly when averages were compared. The data considered were scores in arithmetic computation and problem solving. Of fourteen comparisons made, eight showed a greater gain for the homework group. The authors then drew these conclusions.

⁵ Foran and Weber, op. cit.

⁶ Ibid., p. 212.

The facts themselves provide no substantial foundation for the opinion that homework gains are especially significant from a practical viewpoint. The interpretation of evidence leaves some room for differences of opinion although the general trend confirms the widely held suspicion that homework is not an important factor in promoting achievement among seventh grade pupils in arithmetic.⁷

Another large scale experiment was conducted by Peter J. Di Napoli⁸ to evaluate the merits of compulsory and voluntary homework in New York City elementary schools. Twelve hundred children in grades five and seven were equated on the basis of chronological age, mental age, and achievement on New York Metropolitan Achievement tests. Di Napoli recommended that the obligatory homework policy of the New York City elementary schools should be abolished in favor of voluntary homework because the data did not show that either compulsory or voluntary homework led to greater academic accomplishments in the fifth and seventh grades.

A long range study on homework was carried out by C. C. Crawford of the University of Southern California⁹ and Jacob Carmichael of the El Segundo School, California.

⁷
Ibid., p. 212.

⁸
Peter J. Di Napoli, "Homework in the New York City Elementary Schools," Teachers College Record, 39(November, 1937), pp. 157-8.

⁹
Crawford and Carmichael, op. cit.

The achievement of all children in grades five to eight in El Segundo school was measured annually over a three year period with homework. This was followed by another three year period with no homework. Results shown below were measured in terms of grade placement norms on forms of the Stanford Achievement Test.

Average of grade averages during three years of homework --- grade 7.39.

Average of grade averages during three years without homework --- grade 7.33.

Average grade placement for all pupils grades five to eight with homework --- 7.37.

Average grade placement for all pupils grades five to eight without homework --- 7.33.

Crawford and Carmichael found that there was no significant difference between scores on the Stanford Achievement Test during the three years with homework and the following three years without homework. However, a follow-up study indicated that, although both groups were equally well prepared in subject matter, pupils in the no-homework group made significantly lower marks in high school.

In his article, "No More Homework?",¹⁰ Benjamin Fine referred briefly to two other experimental studies.

10

Benjamin Fine, "No More Homework?" The Pros and Cons., The Social Studies, 43(April, 1952), pp. 169-71.

A two year study by a group of educators and laymen in Connecticut revealed that neither knowledge of subject matter nor work habits and mental discipline were appreciably improved by homework.... A study on a smaller scale in Brooklyn, N. Y. by four high school teachers of history and economics who divided their classes into two groups, one receiving homework and the other not, disclosed no significant differences.

The findings in these experiments indicate that a definite answer to the merits of homework has not yet been found. Homework in its present role, as an integral part of the secondary school program, seems to have been accepted on empirical grounds alone, and for the most part few efforts have been made to evaluate the practice on a scientific basis. Such a time-consuming practice merits much more study of an objective nature.

The following quotation from R. E. Shaul's Master of Arts thesis, "A Survey of the Homework Problem in Alberta,"¹¹ expresses the need for further study of an experimental nature.

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R. E. Shaul, "A Study of the Homework Problem in Alberta." Unpublished M. A. Thesis, University of Alberta, 1939, p. 1.

It would seem that there is considerable loose thinking about this matter of homestudy. On the one hand it is evidently not responsible for the many evils attributed to it, nor is it likely on the other hand to produce the many laudable qualities that its supporters claim for it It is not expected that the report will be received as the final work on the subject. However, it is hoped that it may break the ice, so to speak, and that a comprehensive study of the whole problem be undertaken, culminating in experiments such as those that are being made elsewhere.

In his survey Shaul found that 67 per cent of the teachers who favored homework attributed one of the following three benefits to it:

1. Homework teaches responsibility and aids individual work.
2. The child does more work.
3. Homework teaches the child to use time to advantage.

The majority of teachers who opposed homework did so for these reasons:

1. The school day is long enough.
2. Homework interferes with recreation.
3. Homework is not well done.
4. Checking is laborious.

No appreciable difference in attitude toward homework was found in parents of different occupational groups and less than one-half of the parents took an active interest

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in the students' study practices. In spite of this fact, these same parents supported homework more strongly than either teachers or pupils.

Teacher estimates of a reasonable amount of homework time per week averages 1.06 hours for Division II, 4.03 hours for Division III, and 8.5 hours for Division IV. Students generally did not feel that homework was a burden until grade IX. Shaul attributed this increased amount of homework in grade IX to the Department of Education external examination. The study showed that teachers did not feel the present demands of homework were unreasonable, but students' estimates of time devoted to homework were considerably higher than those of teachers.

Shaul also found that a greater proportion of students than teachers had doubts about the value of homestudy and that a slight relationship existed between the amount of homework assigned and student dislike for a given subject. Although pupils believed that they could study best at home, and parents thought their children concentrated while doing homework, both students and parents were opposed to any increase in amount of homework assigned. Teachers, on the other hand, felt that students study best in school.

In summing up, Shaul attributes the faults of homework practices in Alberta to the following causes:

1. Inefficient control by staff and administration
 - (a) total amount is excessive, especially in secondary school.
 - (b) teachers underestimate time required to do assignments.
 - (c) some teachers monopolize homework time.
2. Faulty organization and administration.
3. Indifference of parents to the homestudy problem.
4. Unstable homestudy environment.

CHAPTER III

DEFINITIONS OF HOMEWORK - TYPES AND PURPOSES

Homework is broadly defined as study or preparation outside the classroom. However, this definition must be further refined to describe several types of homework which may differ in purpose and source of motivation.

Formal or Assigned Homework

This is a definite and compulsory assignment from the teacher which the student is required to complete outside the class period. These assignments usually must be completed for a specific time. The form that such homework takes will depend on the purpose for which it was assigned. It may be assigned to provide background for a more complete understanding of the next day's classroom lesson, or it may be remedial homework assigned to students who have not completely mastered concepts previously taught. Thirdly, it may take the form of reports prepared outside the class period, and presented to the class by the students, to enrich the classroom experience. Lastly, homework may sometimes be assigned as a punishment or disciplinary measure. However, such practice is generally frowned upon on the grounds that school work should not be used as punishment.

Informal or Voluntary Homework

The teacher does not assign this homework, but the student studies on his own initiative. Such study is usually a regular part of the student's routine as distinguished from short term, concentrated preparation for specific examinations. The student's motivation is a keen interest in his education. He may review concepts previously studied or practise skills not fully mastered in class.

Preparation for Examinations

Preparation for examinations is not completely voluntary since the student knows that shortly he will be expected to pass the examination. On the other hand, neither is it strictly assigned homework because he is free to do as much or as little preparation as he wishes, and he may choose the area of the subject matter which he will stress.

R. E. Shaul in his unpublished M. A. thesis

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Ibid., pp. 25-6.

refers to this classification of homework used by the Educational Committee of the National Union of Teachers.

Remedial Homework: This type consists of individual work outlined by the teacher in consultation with the parent, or with the parent's consent and promise of co-operation. Such work should be set for normal pupils who have missed a good deal of school or who are finding some subject or part of some subject very difficult. The responsibility would be passed on to the parent only when the teacher or child has no time to do the work in school.

Self-assigned Homework: This takes the form of work which the school encourages the pupil to do out of school hours but which is in no way compulsory. It may be closely connected with the work done in class, or it may have little or no bearing on school work. It may be inspired by the school but it is never assigned by the teacher.

Free Preparation Work: This is work set during or at the end of a lesson or unit and which the pupil must have prepared at a certain time. The work may be done during the lesson or study periods or at home. Such preparation becomes homework only when there is not sufficient time to finish it in school. Thus in the senior grades of the secondary school Free Preparation Work will almost always consist partly of work done in school and partly of homework.

Disciplinary Homework: Some claim that there is virtue in homework entirely aside from its usefulness as a preparation or a review of lessons, and that each day the school should set definite work to be done at home. Such work is not to be done at home simply because there is not time to do it in school; it is compulsory homework and MUST be done in the home. The actual doing of it under such conditions is presumed to be beneficial.

For the purposes of this study, "homework" means formal or assigned homework unless otherwise noted.

CHAPTER IV

THE PLAN OF PROCEDURE

Preparation for the Experiment

A pilot study, which followed closely the method used in this experiment, was made during the 1957-58 school year. Experience thus gained assisted in the organization of the actual experiment.

Subject Matter Chosen

The subject matter for the study was chosen from Units II and III of the Grade IX Course of Studies.¹³ Study of both these Units requires basically factual knowledge fitting the purposes of such a study. Units II and III were not covered in their entirety in the experiment in order to minimize the amount of examination preparation done by the control group. If the entire units had been studied, students in the control group would probably have expected an examination at the completion of the unit and done some special preparation. For the same reason the experiment was conducted at a time as far as possible from the issuing of report cards,

when students would again expect and voluntarily study for an examination. As voluntary homework done by the control group was not a controlled factor, these attempts were made to avoid situations where preparation for examinations might constitute a sort of "unassigned" homework.

Preparation of Tests and Homework Assignments

The tests used to measure the growth in factual knowledge were of the objective type. Before preparing the tests a study was made of Teaching High School Social Studies,¹⁴ Chapter X. This chapter surveys the refinements which have been made in preparation of standard objective type items such as were used in the two tests. Each test item was critically subjected to the criteria outlined in the chapter.

All homework assignments were prepared by the author,¹⁵ and questions on the tests used in measuring achievement were not considered in the preparation of the homework.

¹⁴ Maurice P. Hunt and Lawrence E. Metcalf, Teaching High School Social Studies, New York: Harper, 1955, Chapter X.

¹⁵ Appendixes F and G.

In cases where the homework appears to relate directly to questions on the tests, the importance of the subject matter was the criterion for both the test items and the homework assignments.

Some of the homework was designed to re-emphasize important concepts studied in class. Others required the student to summarize chapters in the textbook by filling in a grid provided. A few were basically reading assignments of subject matter before it was taught in class in order to provide the students with background for a more meaningful classroom experience. Two assignments were reviews of vocabulary necessary for a complete understanding of the Unit.

The Teachers and their Classes

A major problem in preparing for the experiment was enlisting the co-operation of teachers in a study which required their active participation over a period of two months. Further, it was desirable to determine, as far as possible, the attitudes of the teachers toward homework. A teacher with strong anti-homework views participating in an experiment of this kind could conceivably work toward

producing results which show homework to be of little value. Where possible, each teacher's attitude was determined by means of the attitude questionnaire¹⁶ before enlisting his co-operation. However, in some cases this was not possible, and the questionnaire was answered with full knowledge of the proposed experiment.

The Method

The general plan was similar to that used by Foran and Weber¹⁷ except that they used a standardized achievement test to measure the gains of the homework and the control groups. In this study objective tests were prepared based on the subject matter involved. More specifically, gains in factual knowledge were measured by the improvement of pupils' scores on a final test compared with scores made on the same pre-test.

Since matched or parallel groupings were not available in actual school organizations, the "rotation-group" technique¹⁸ was employed. That is, the study was made in two parts so that the experimental group in Unit II (round 1) became the

¹⁶
Appendix D.

¹⁷
T. J. Foran and Sister Marie Weber, op. cit.

¹⁸
Carter V. Good and Douglas E. Scates, Methods of Research, p. 706. New York: Appleton-Century-Crofts Inc., 1954.

control group in Unit III (round 2). This method was the most effective one available because several factors existed which could not be otherwise controlled. The teacher-factor, for instance, even though reduced considerably with six teachers participating, still existed until the teachers in the experimental group of round 1 became the teachers of the control group of round 2. Because the same results were obtained in both rounds after the participating groups exchanged roles, it was assumed that homework was the factor producing these results.

Once the six teachers and the nine participating classes were known, the two groups were arranged to insure no significant difference in mean intelligence.

Each teacher taught the material independently though all classes in the homework group did the same homework. A check-list was kept by each teacher to insure that all students completed their assignments. Teachers were instructed to use the assignments as they saw fit but to use them all.

In order to assess homework as a factor in over-achievement and under-achievement by certain students, it was desirable to base achievement on knowledge of a more

extensive part of the social studies course. In the month of April all grade IX students in the city of Edmonton wrote a one hundred and fifty item paper covering the major units of the social studies course. This test, which is attached as Appendix H, was drawn up by a committee of teachers who used previous Department Examination papers as a base. Scores obtained on this test by the classes participating in the study were filed on data sheets along with each pupil's I. Q. rating and his answers to the student questionnaire pertaining to homework habits and attitudes. Over-achievers were designated as students whose decile ranks for achievement on the test were four or more deciles above their intelligence deciles. Similarly, under-achievers were those whose achievement deciles were four or more deciles below their intelligence deciles.

CHAPTER V

A COMPARISON OF THE TWO GROUPS IN RELATION TO INTELLIGENCE, ENROLLMENT, AND PROPORTION OF BOYS AND GIRLS

A Comparison of I. Q. Ratings

I. Q.'s were obtained from the cumulative record cards of the students. The rating used was determined by the Laycock Mental Ability Tests administered to all grade V students in the Edmonton Public Schools.

Mean I. Q.'s of students in each group

The method of grouping students, as previously explained, was not that of matching individual students on the basis of intelligence and achievement. Rather, the mean I. Q. of each class was calculated and the classes then grouped to equalize the mean I. Q.'s of the two groups.

The true means of each group, thus formed, were 108.67 and 109.0. When these means were tested for significance of difference, a "t" score of 0.2 was obtained. It was, therefore, assumed that the two groups were of equal intelligence and any difference in gains could not be attributed to difference in ability. Both the formula for

the SE of the difference between uncorrelated means and the "t" test for the significance of difference between means were taken from Statistics In Psychology and Education by Henry E. Garrett.
20

Mean I.Q's of superior, average, and lower intelligence sub-groups

The experiment attempted to determine the effect of I.Q. on the benefits derived from assigned homework. Each of the two main groups, therefore, was divided into three sub-groupings of approximately equal size based on levels of intelligence. Students having I. Q's of 101 and under were placed in the lowest group. Those with I. Q's between 102 and 113 made up the middle group, and students with I. Q's of 114 and over were designated as superior.

It then became necessary to determine whether the superior, average, and lower intelligence sub-groups in one group had the same mean I. Q. as their counterparts in the other group. The calculated means of superior intelligence students in each group were 123.1 and 122.64. When this difference was tested for significance, a "t" score of 0.26 was

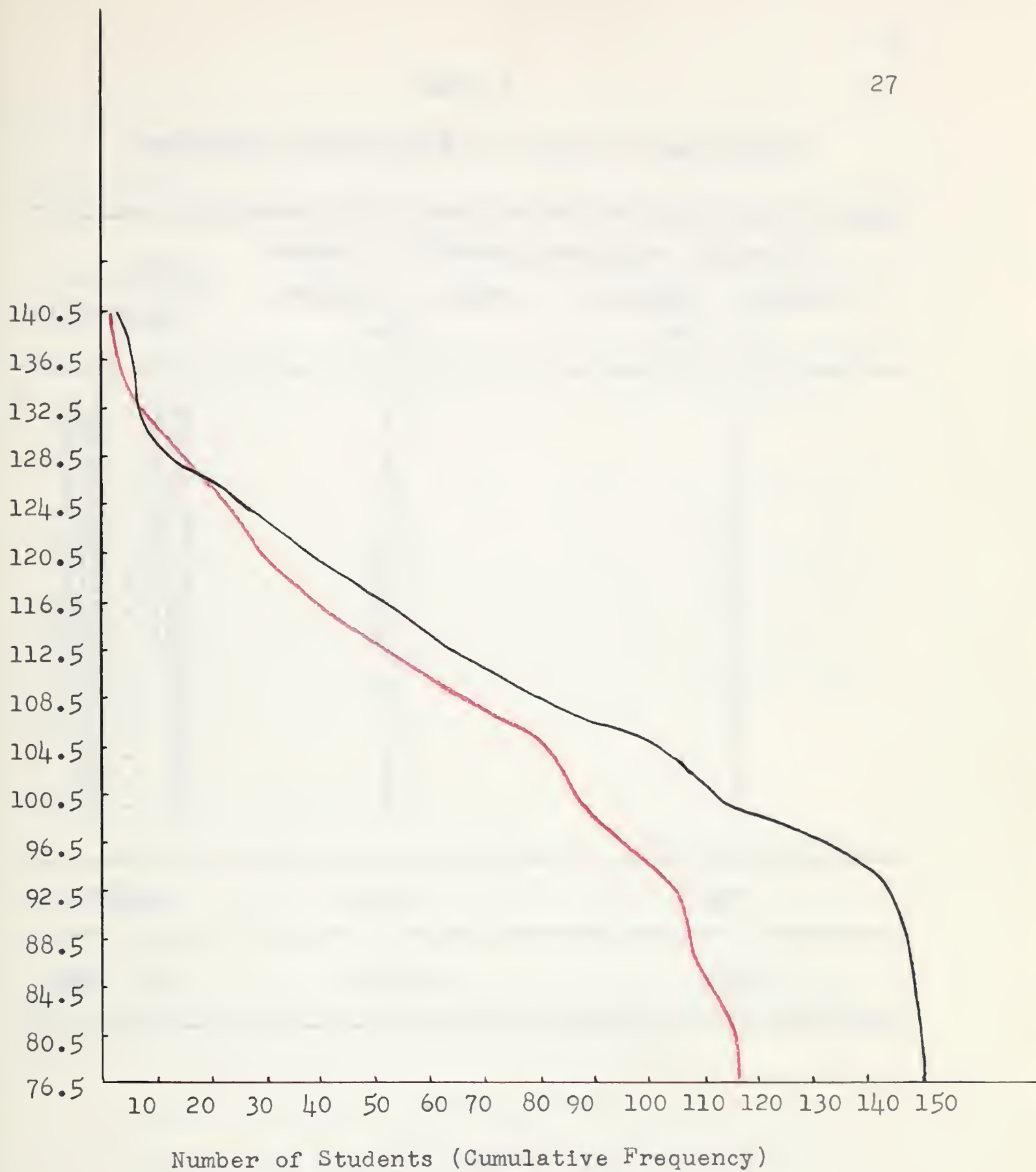


FIGURE 1

COMPARISON OF I.Q. RATINGS OF STUDENTS IN THE TWO GROUPS

TABLE I

FREQUENCY DISTRIBUTION OF I.Q.'S OF EACH GROUP

I.Q. RATING (INTERVAL)	NUMBER OF STUDENTS OBTAINING SCORES IN	
	HOMEWORK - ROUND 1	HOMEWORK - ROUND 2
	GROUP I	GROUP II
142 - 139	2	3
138 - 135	1	2
134 - 131	4	2
130 - 127	8	5
126 - 123	8	14
122 - 119	5	12
118 - 115	10	13
114 - 111	13	13
110 - 107	14	16
106 - 103	16	21
102 - 99	5	9
98 - 95	11	22
94 - 91	7	13
90 - 87	3	1
86 - 83	4	3
82 - 79	4	1
78 - 75	1	0
TOTALS	116	150
MEAN I.Q.	108.67	109.0

obtained indicating that these sub-groups were of equal intelligence.

Students in the middle or average intelligence range in each group showed mean I. Q's of 107.06 and 107.5. Statistical comparison for significance of difference revealed a "t" value of 0.83 and the groups were considered equal.

The mean I. Q's of students in the lower intelligence sub-groups were 94.56 and 91.94. Here, however, the value of "t" was 2.08 and indicated a real difference in intelligence at the .05 level of significance. This fact made it more difficult to conclude what value homework had when gains of these two groups were compared.

Mean I. Q's of boys and girls

Another purpose of the study was to determine whether boys and girls obtained equal benefits from assigned homework. Gains of boys in the homework group were compared with gains of boys in the control group, and in the same manner gains made by girls in each group were noted.

Also as a further check, gains of boys and girls in the homework group were compared. Here again, before valid conclusions could be made it was essential that in each comparison I. Q's be considered. Mean I. Q's of boys

in each group were 108.38 and 108.02. When compared statistically a "t" score of 0.14 was obtained, and therefore the I. Q's were considered equal.

Mean I. Q's of boys and girls in the homework group of round 1 were 108.38 and 108.34 respectively. A statistical comparison produced a "t" score of .015 which again showed no real difference.

The intelligence of the homework and control groups then were equal; the intelligence of boys in both groups were equal, and the intelligence of boys and girls in one group were equal. It followed, then, that the intelligence of girls in both groups must have been equal also.

The Enrollment of the Two Groups

The total number of students participating was 266. Since there were nine classes it was necessary that five classes be in one group and four classes in the other. The five class group contained 150 students and the four class group 116. Unfortunately, these unequal numbers made some types of figure comparisons less meaningful.

Proportion of Boys and Girls

The larger group contained 83 boys and 67 girls, and the other 52 boys and 64 girls. The total number, then, participating was 135 boys and 131 girls.

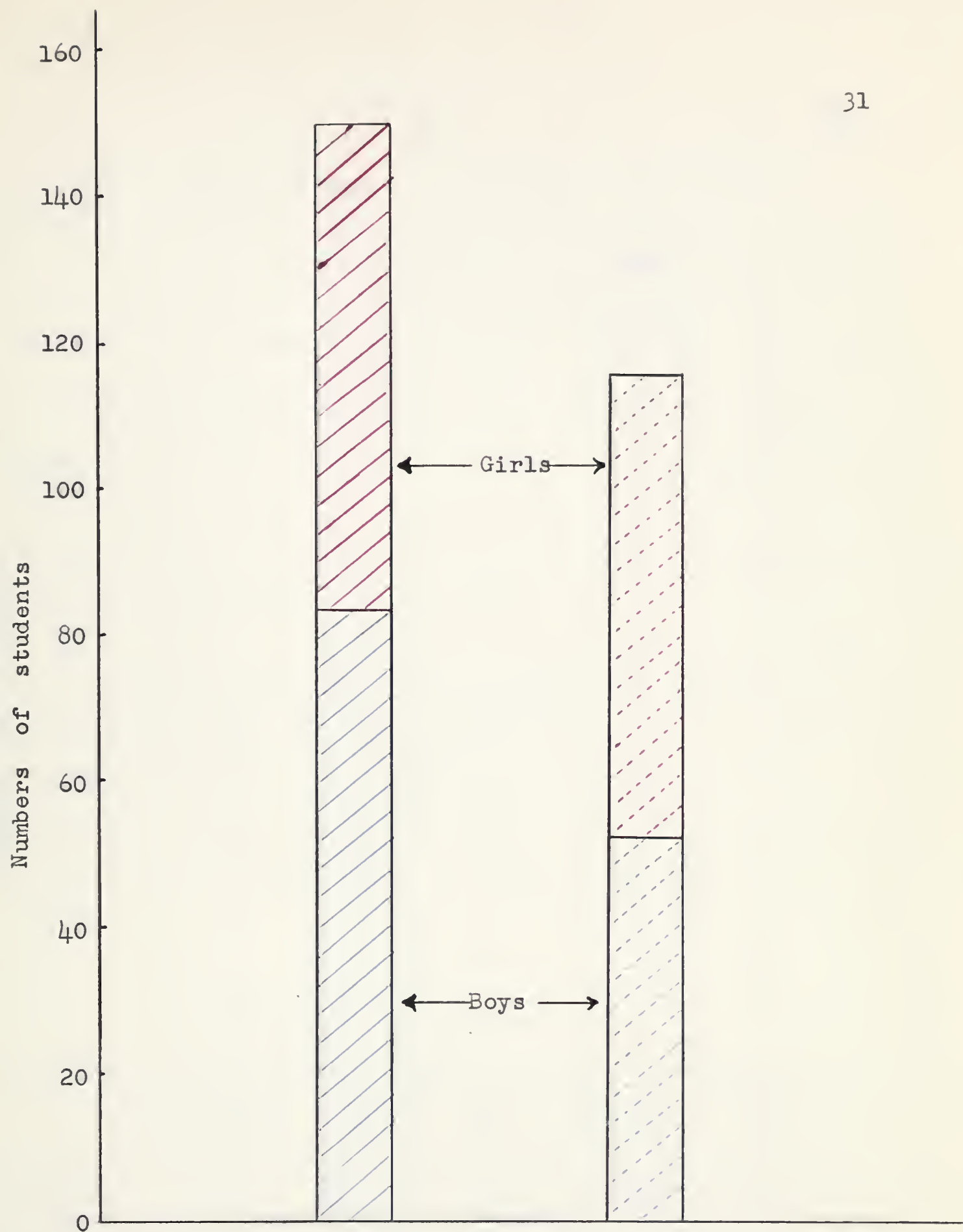


FIGURE 2

COMPARISON OF NUMBER OF STUDENTS AND PROPORTION
OF BOYS AND GIRLS IN THE TWO GROUPS

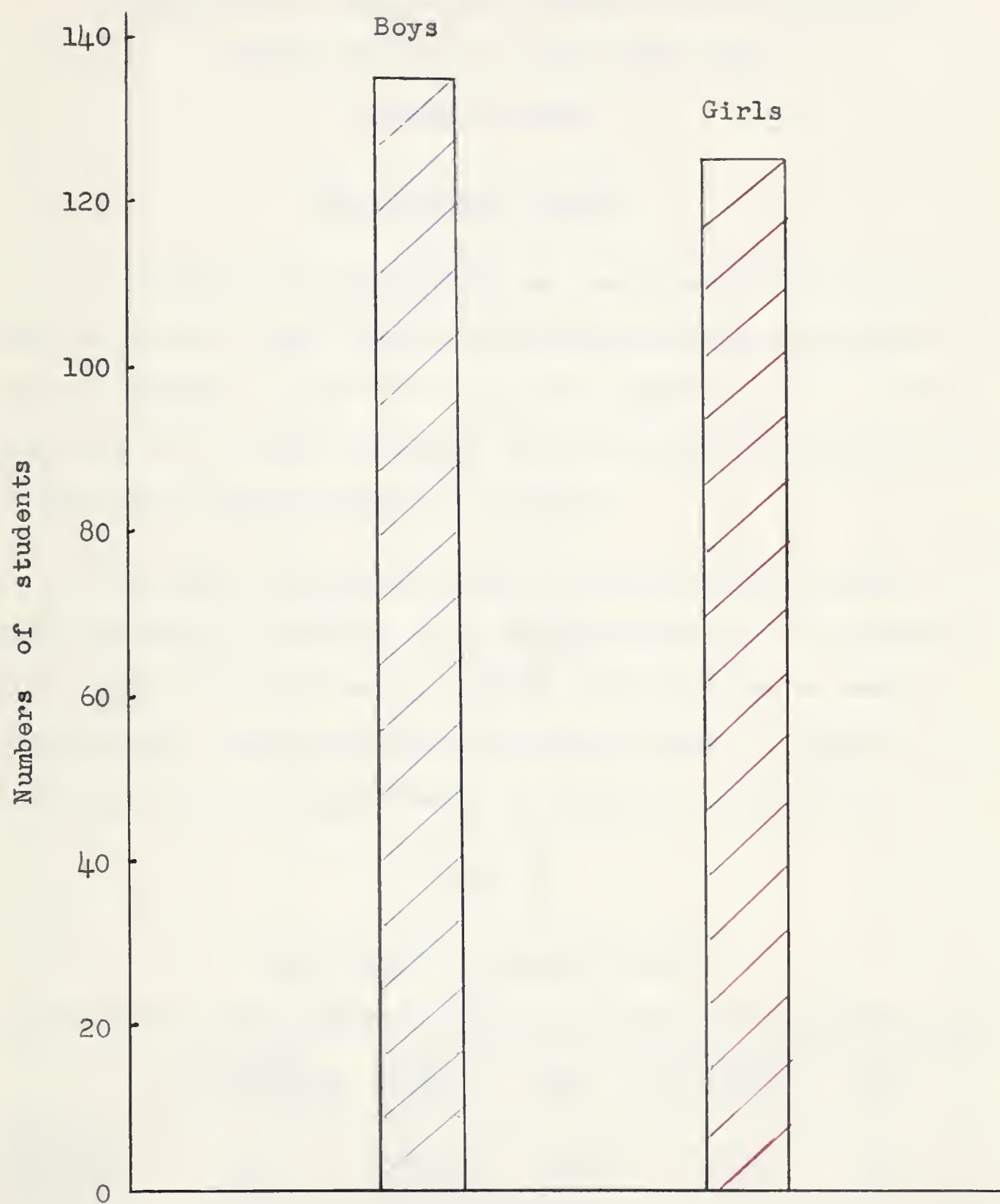


FIGURE 3

COMPARISON OF THE NUMBER OF BOYS AND GIRLS
PARTICIPATING IN THE EXPERIMENT

CHAPTER VI

A COMPARISON OF MEAN GAINS OBTAINED BY HOMEWORK AND CONTROL GROUPS ON FINAL TESTS OVER PRE-TEST SCORES

The Pre-test Scores

The mean scores obtained on the pre-test by the homework group for round 1 was 10.38 compared with 10.63 by the control group. As the "t" value for significance of difference was 1.5, it was concluded that no significant difference in pre-test scores existed in round 1.

In round 2 the homework and control groups showed mean scores of 13.02 and 13.16 respectively on the pre-test. Here again, with "t" equal to 0.25, the difference was not significant. These pre-test scores are shown in Table II below and pictured graphically in Figure 4 on page 34.

TABLE II

A COMPARISON OF PRE-TEST SCORES

	NUMBER OF STUDENTS	MEAN SCORES	S.D.	DIFFERENCE IN MEANS	VALUE OF "t"
ROUND 1					
HOMEWORK	116	10.38	3.38	0.25	1.5
CONTROL	150	10.63	3.30		
ROUND 2					
HOMEWORK	150	13.02	4.0	0.14	.25
CONTROL	116	13.16	4.76		

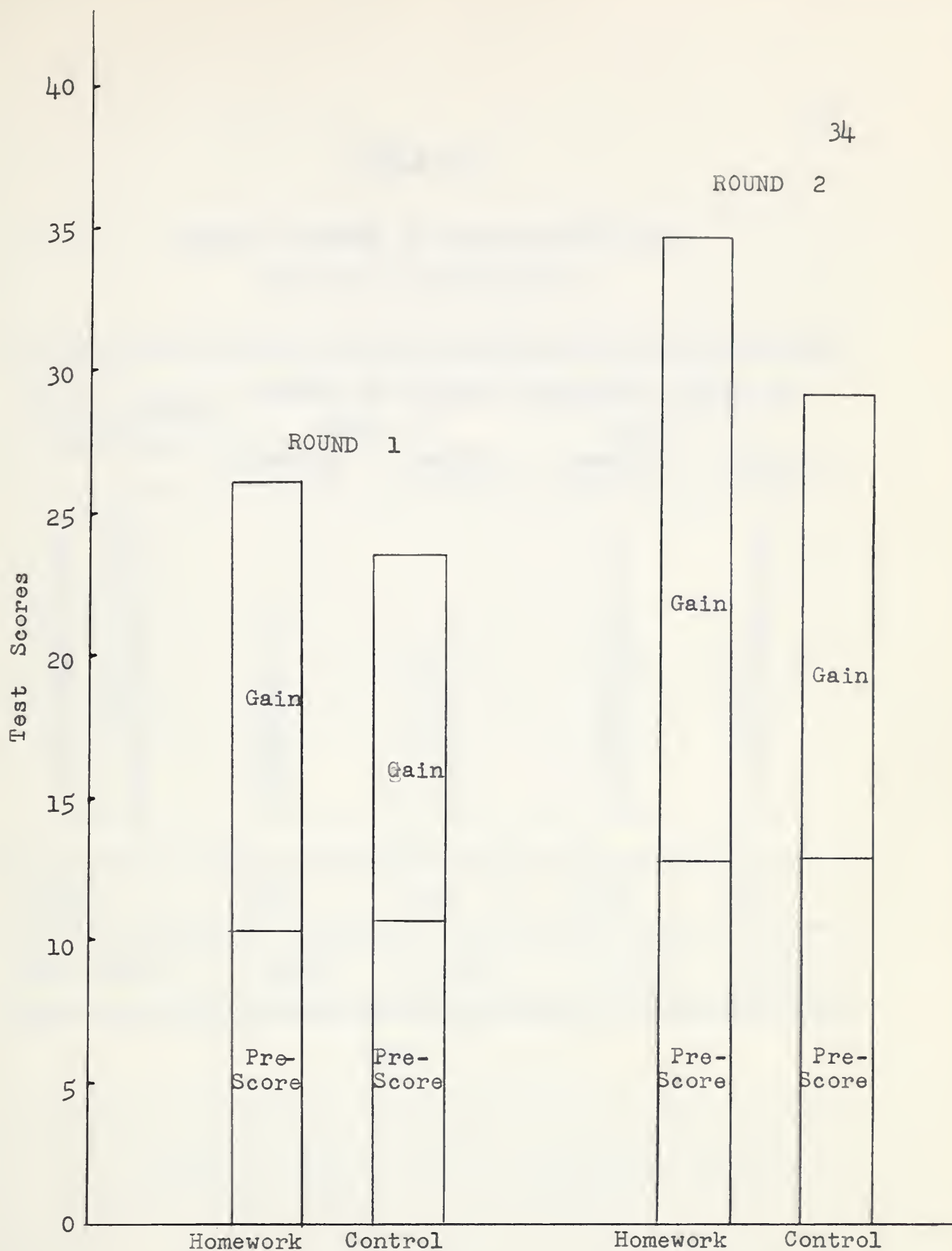


FIGURE 4

MEANS OF PRE-TEST SCORES AND GAINS OF THE TWO GROUPS
IN ROUND 1 AND ROUND 2

TABLE III

SCORES OBTAINED ON THE PRE-TESTS BY
STUDENTS IN BOTH GROUPS

SCORES OBTAINED (INTERVALS)	NUMBER OF STUDENTS OBTAINING SCORES IN			
	ROUND 1		ROUND 2	
	HOMEWORK	CONTROL	HOMEWORK	CONTROL
28 - 27				2
26 - 25			1	2
24 - 23			2	1
22 - 21			3	5
20 - 19	3	3	4	4
18 - 17	4	2	17	13
16 - 15	6	11	25	8
14 - 13	10	24	31	19
12 - 11	25	39	23	23
10 - 9	29	32	26	24
8 - 7	25	27	13	12
6 - 5	10	5	4	3
4 - 3	4	7	1	0
TOTALS	116	150	150	116
MEAN SCORE	10.13	10.63	13.02	13.16

Gains Obtained on Final Tests

It is highly improbable that students doing homework of the type used in this experiment would learn less than if they had done none. Therefore, as only positive differences resulting from homework are of interest, the one-tailed test of significance was employed in comparing gains of the homework and control groups.

Round 1 mean final scores made by the homework and control groups were 26.26 and 23.68 respectively. The actual gains by each group favored the homework group by 2.83 items on a fifty item test. When the significance of this difference was tested statistically, the value of "t" was found to be 3.94 and was significant at the 0.01 level.

Similarly, in round 2 the mean final score of 34.8 obtained by the homework group was 5.64 higher than the 29.3 obtained by the control group on a sixty item test. A "t" score of 6.5 again showed a significant difference at the 0.01 level.

TABLE IV

A COMPARISON OF GAINS OBTAINED BY HOMEWORK AND CONTROL GROUPS

	NUMBER OF STUDENTS	MEAN SCORES	S.D.	DIFFERENCE IN MEANS	VALUE OF "t"
ROUND 1					
HOMEWORK	116	15.88	5.80	2.83	3.94
CONTROL	150	13.05	5.86		
ROUND 2					
HOMEWORK	150	21.78	7.60	5.64	6.50
CONTROL	116	16.14	6.16		

TABLE V

GAINS MADE BY EACH GROUP IN ROUND 1 AND ROUND 2

GAIN OBTAINED (INTERVAL)	NUMBER OF STUDENTS OBTAINING SCORES IN			
	ROUND 1		ROUND 2	
	HOMEWORK	CONTROL	HOMEWORK	CONTROL
42 - 41			1	
40 - 39			2	
38 - 37			1	
36 - 35			3	1
34 - 33			1	0
32 - 31			12	1
30 - 29	2		13	1
28 - 27	3	2	6	2
26 - 25	4	3	22	5
24 - 23	9	4	13	8
22 - 21	10	8	12	9
20 - 19	10	15	19	13
18 - 17	12	13	10	15
16 - 15	15	17	11	12
14 - 13	16	14	8	13
12 - 11	15	17	7	13
10 - 9	7	19	4	14
8 - 7	6	15	4	5
6 - 5	5	13	1	2
4 - 3	2	6	0	0
2 - 1	0	4	0	1
TOTALS	116	150	150	116
MEAN GAIN	15.88	13.05	21.78	16.08

Gains by superior intelligence students

Round 1. Superior students in the homework group gained 18.1 while those in the control group gained 16.24 test items. The difference of 1.86 was not significant at the 0.05 level.

Round 2. Here, superior students who received homework gained 23.9 and the control group 19.5. When tested statistically this difference was significant at the 0.01 level. Table VI shows these results as does Figure 5, page 39.

TABLE VI

A COMPARISON OF GAINS OBTAINED BY SUPERIOR INTELLIGENCE
STUDENTS (I.Q. 114 PLUS) IN HOMEWORK
AND CONTROL GROUPS

	NUMBER OF STUDENTS	MEAN GAIN	S.D.	DIFFERENCE IN MEANS	VALUE OF "t"
ROUND 1					
HOMEWORK	42	18.1	6.46	1.86	1.5
CONTROL	56	16.24	5.26		
ROUND 2					
HOMEWORK	56	23.9	7.2	4.4	3.2
CONTROL	42	19.5	6.24		

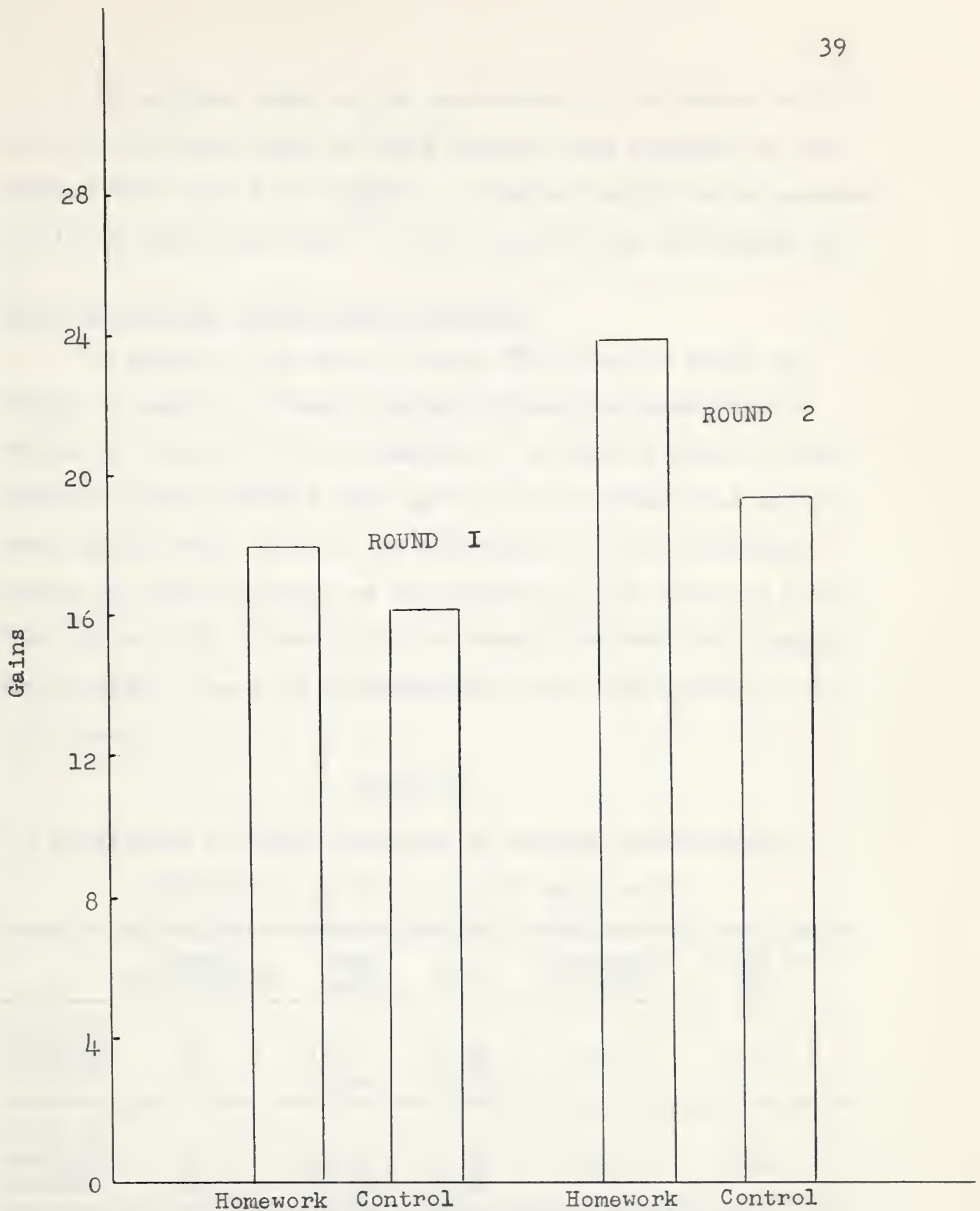


FIGURE 5

COMPARISON OF MEAN GAINS OF SUPERIOR INTELLIGENCE
STUDENTS IN HOMEWORK AND CONTROL GROUPS

In neither round of the experiment did students of superior intelligence gain as much benefit from homework as the average and lower I.Q. students. Similar results were recorded by William Ewart Anderson²¹ in his study cited in Chapter II.

Gains by average intelligence students

A graph of the data of Table VII below is shown in Figure 6, page 41. These students showed the greatest increase as a result of the homework. In round 1 those in the homework group showed a mean gain of 15.9, whereas the control group gained only 11.64. The difference of 4.26 was significant at the 0.01 level as indicated by a "t" value of 2.52. Mean gains of 22.18 and 15.15 in round 2 favored the homework group again. The 7.03 difference was also significant at the 0.01 level.

TABLE VII

A COMPARISON OF GAINS OBTAINED BY AVERAGE INTELLIGENCE
STUDENTS (I.Q. 101 - 113) IN EACH GROUP

	NUMBER OF STUDENTS	MEAN GAIN	S.D.	DIFFERENCE IN MEANS	VALUE OF "t"
ROUND 1					
HOMEWORK	40	15.9	5.38	4.26	2.52
CONTROL	47	11.64	5.76		
ROUND 2					
HOMEWORK	47	22.18	6.28	7.03	6.16
CONTROL	40	15.15	4.54		

²¹Anderson, op. cit., p. 43.

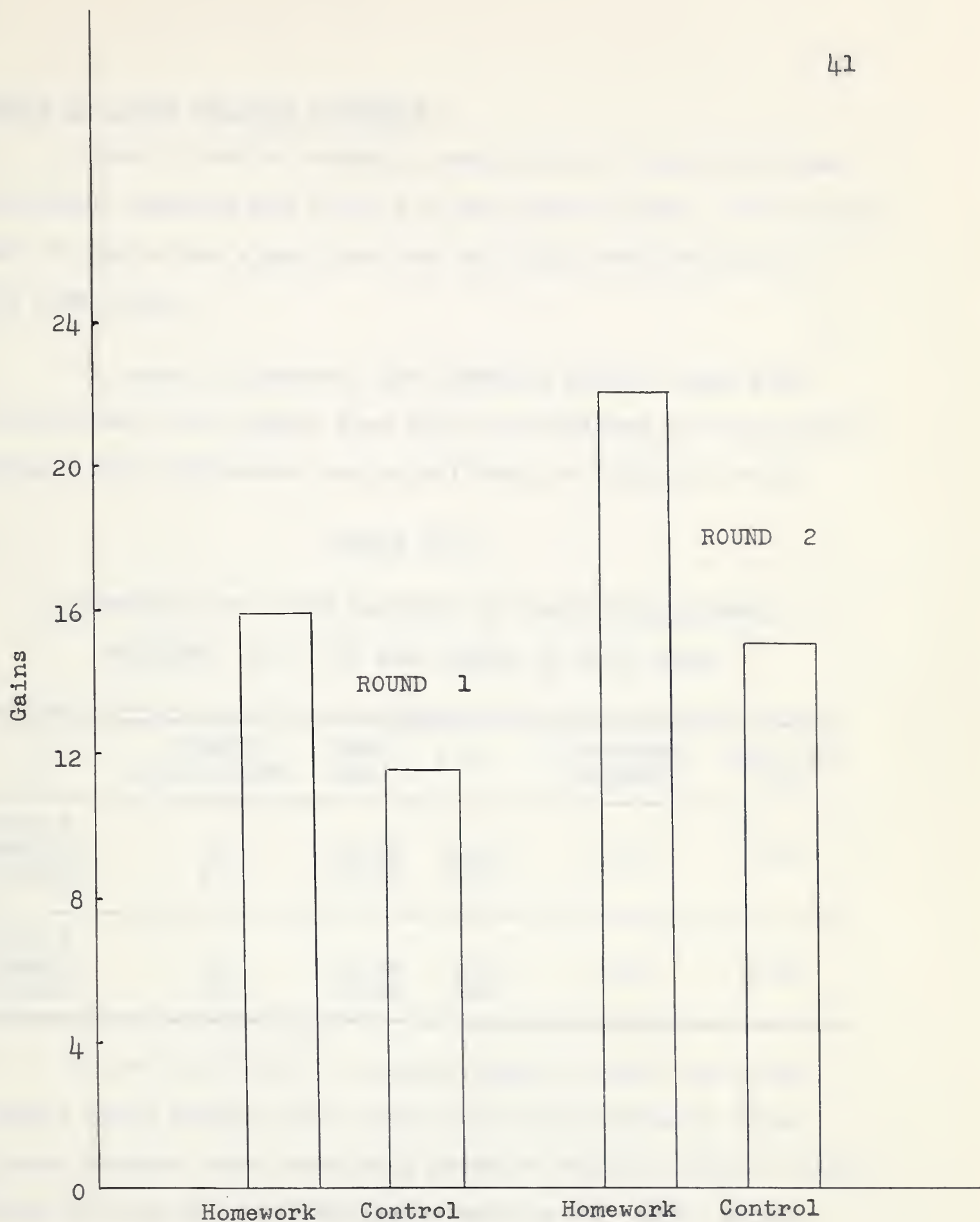


FIGURE 6

COMPARISON OF MEAN GAINS OF AVERAGE INTELLIGENCE
STUDENTS IN HOMEWORK AND CONTROL GROUPS

Gains by lower ability students

Round 1 results showed a mean gain of 13.03 for those receiving homework and 10.56 for the control group. The difference in gains was significant at the 0.05 level but not at the 0.01 level.

In round 2, however, the homework group's mean gain of 20.02 was 6.13 higher than the 13.9 obtained by the control group. This difference was significant at the 0.01 level.

TABLE VIII

A COMPARISON OF GAINS OBTAINED BY LOWER INTELLIGENCE
STUDENTS (I.Q. 100 AND UNDER) IN EACH GROUP

	NUMBER OF STUDENTS	MEAN GAIN	S.D.	DIFFERENCE IN MEANS	VALUE OF "t"
ROUND I					
HOMEWORK	34	13.03	4.65	2.47	1.96
CONTROL	47	10.56	6.02		
ROUND II					
HOMEWORK	47	20.02	7.68	6.13	4.30
CONTROL	34	13.90	5.12		

It was difficult to compare gains by this low intelligence group because of a significant difference in intelligence between those receiving homework and the control group. Figure 8, page 44, pictures gains made by all three intelligence groups.

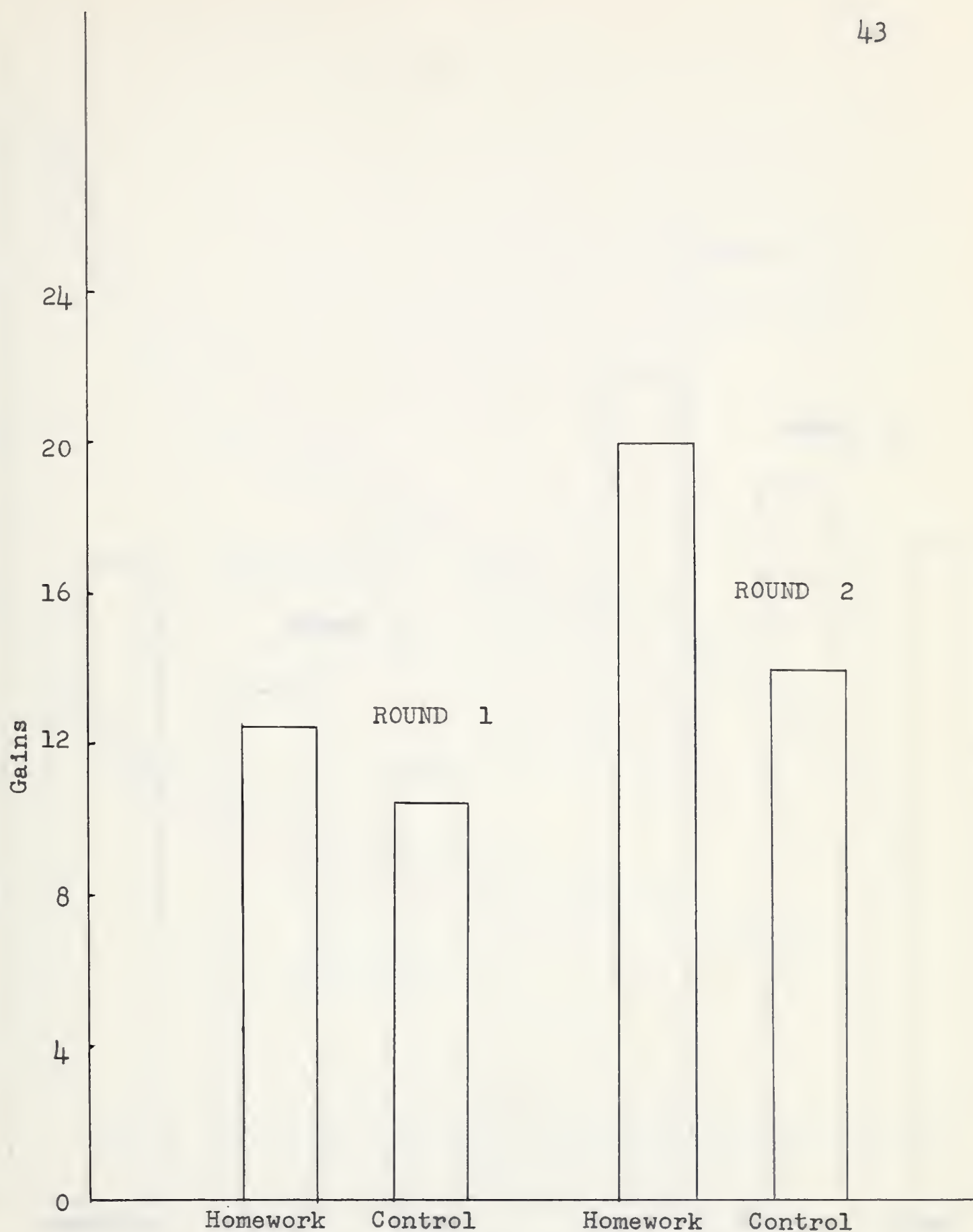


FIGURE 7

COMPARISON OF MEAN GAINS OF LOWER INTELLIGENCE
STUDENTS IN THE HOMEWORK AND CONTROL GROUPS

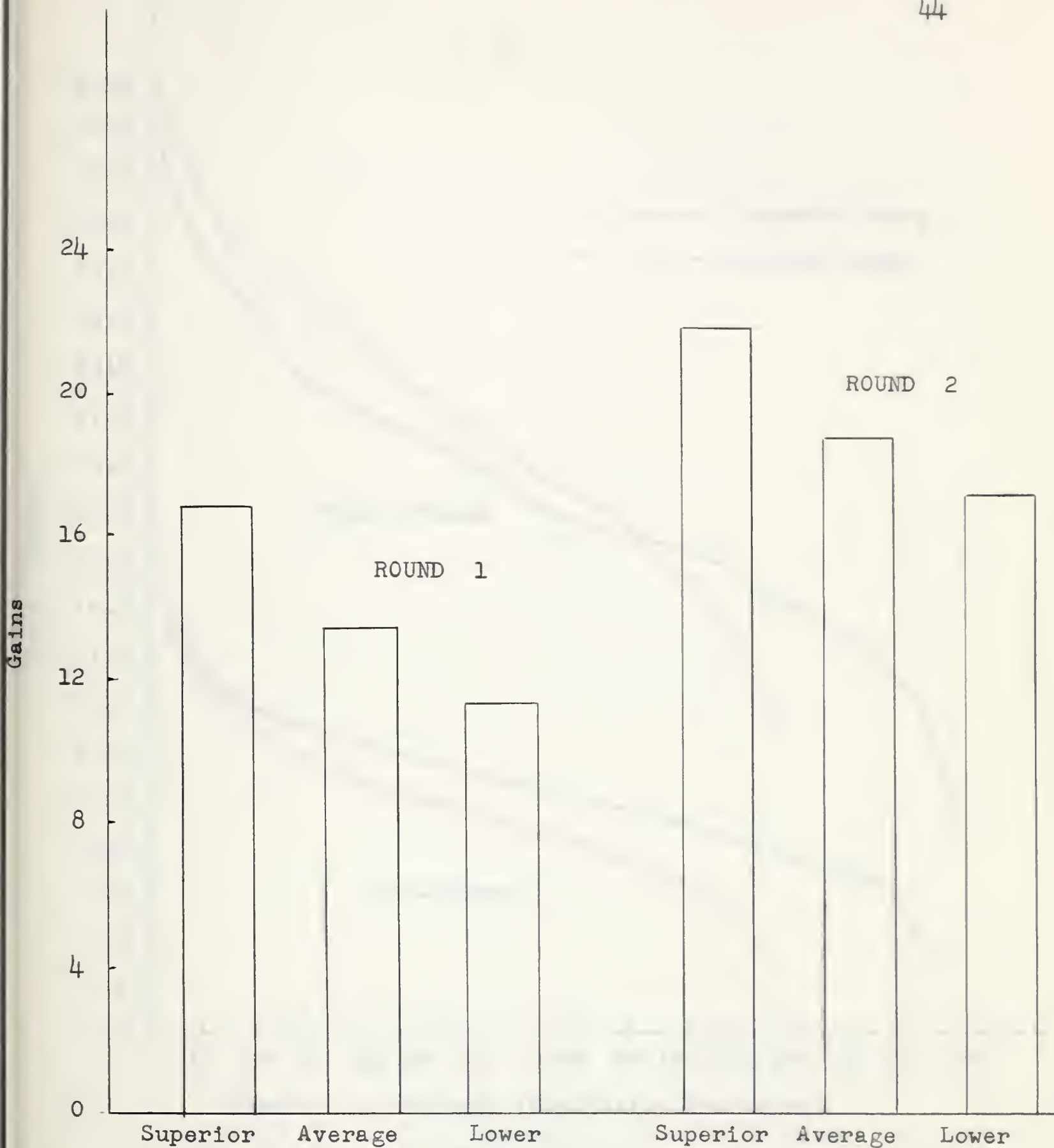


FIGURE 8

COMPARISON OF MEAN GAINS OF SUPERIOR, AVERAGE AND
LOWER INTELLIGENCE STUDENTS OF BOTH GROUPS

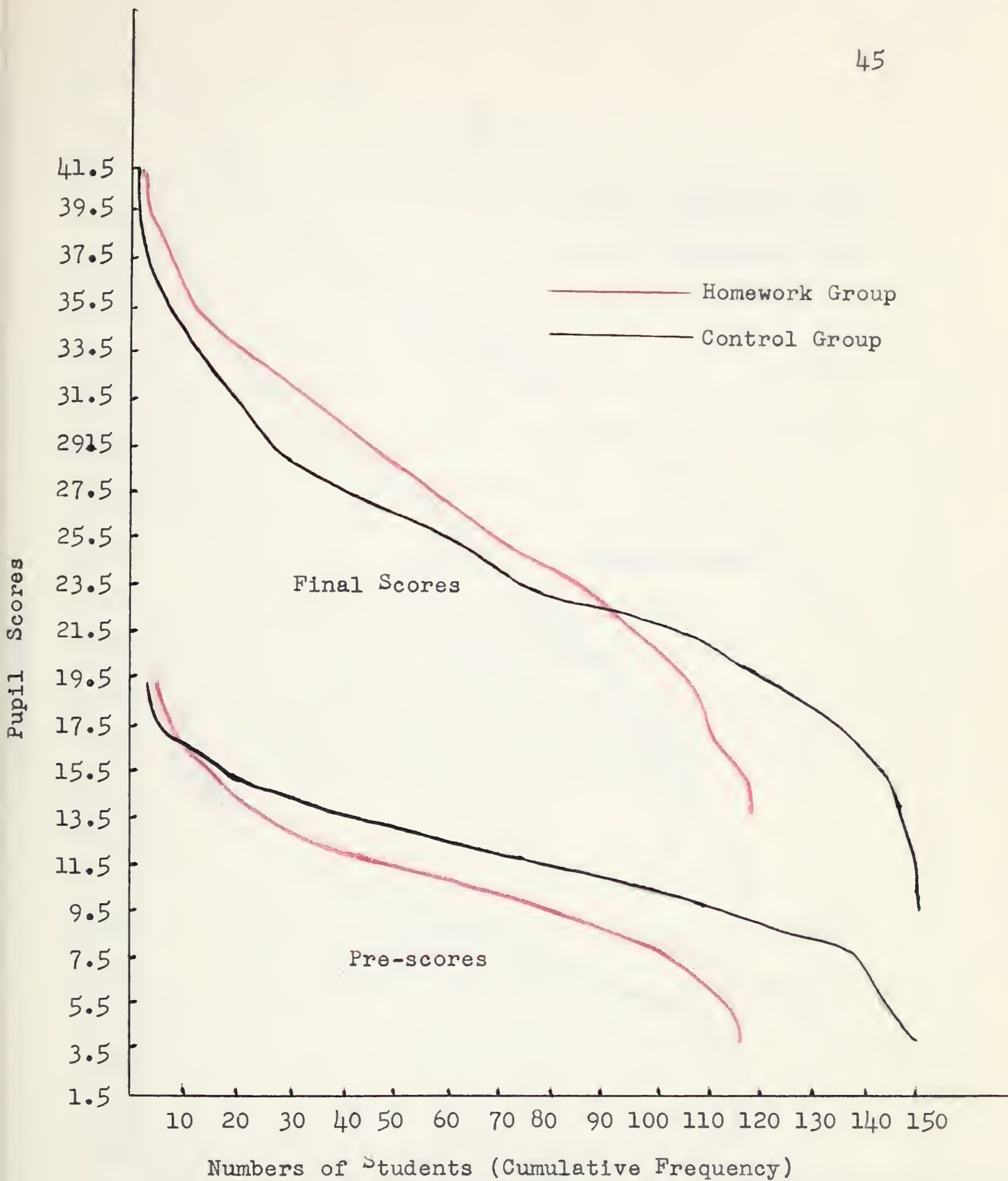


FIGURE 9

COMPARISON OF PRE-SCORES AND FINAL SCORES OF HOMEWORK
AND CONTROL GROUPS IN ROUND I

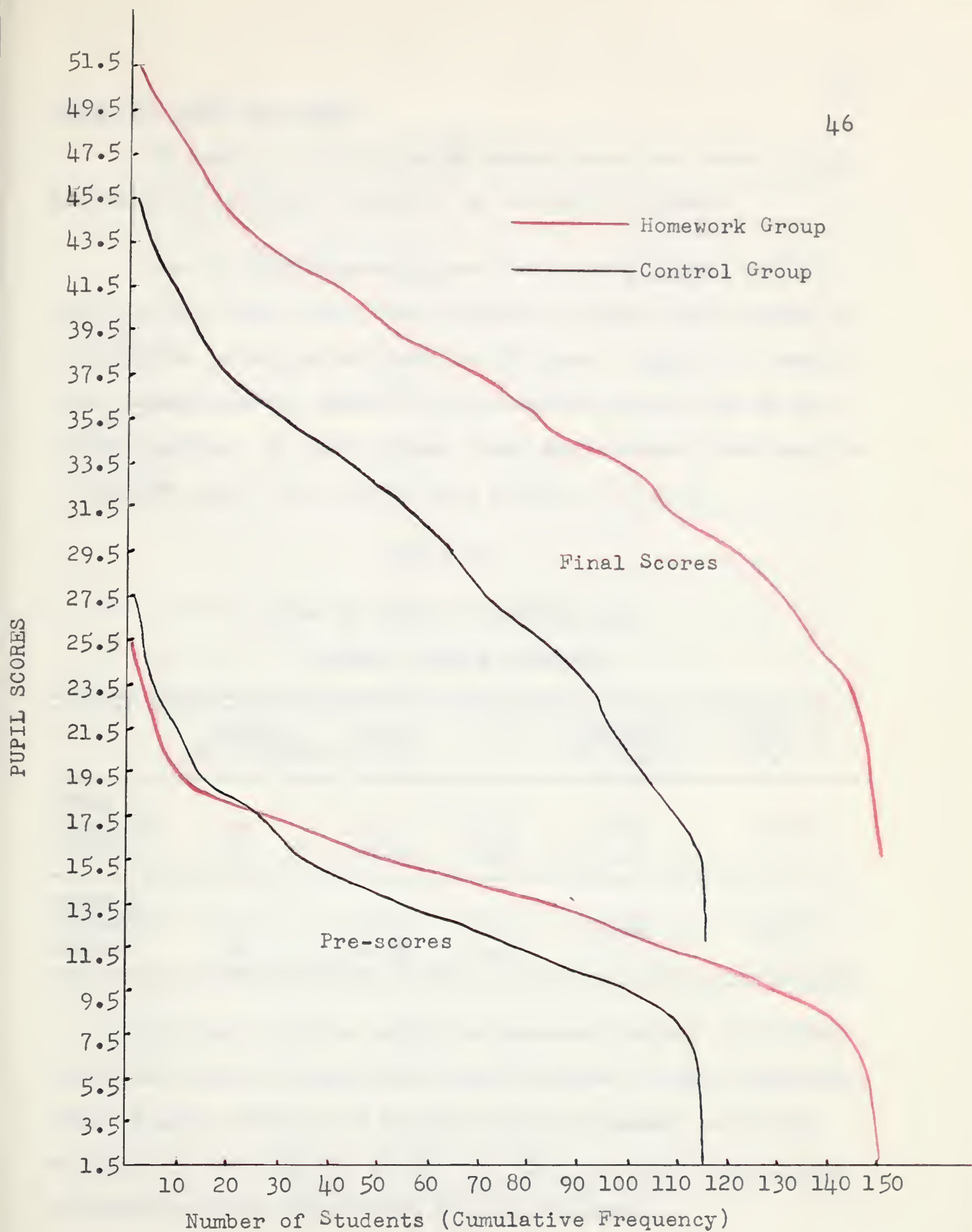


FIGURE 10

COMPARISON OF PRE-SCORES AND FINAL SCORES OF HOMEWORK
AND CONTROL GROUPS IN ROUND II

Gains by boys and girls

In none of the following comparisons was there a significant difference in mean I. Q. at the .05 level.

Boys in the homework group in round 1 gained 16.60 items on the final test over pre-test scores, while those in the control group gained only 12.85 items. Again, in round 2 boys doing homework gained 21.55 compared with 16.74 by the control group. In both rounds these differences favoring the homework group were significant at the .01 level.

TABLE IX

GAINS BY BOYS IN HOMEWORK AND CONTROL GROUPS COMPARED

	NUMBER OF STUDENTS	MEAN GAIN	S.D.	DIFFERENCE IN MEANS	VALUE OF "t"
ROUND 1					
HOMEWORK	52	16.69	6.19	3.84	3.46
CONTROL	83	12.85	6.42		
ROUND 2					
HOMEWORK	83	21.55	7.40	4.81	4.45
CONTROL	52	16.74	6.42		

In round 1 girls receiving homework gained 15.25 test items and those in the control group gained 13.23. Similarly, round 2 gains were 22.92 by girls doing homework and 16.16 by those in the control group. As with the boys, both these differences were significant at the .01 level.

TABLE X

GAINS BY GIRLS IN HOMEWORK AND CONTROL GROUPS COMPARED

	NUMBER OF STUDENTS	MEAN GAIN	S.D.	DIFFERENCE IN MEANS	VALUE OF "t"
ROUND 1					
HOMEWORK	64	15.25	5.65	2.02	2.06
CONTROL	67	13.23	5.52		
ROUND 2					
HOMEWORK	67	22.92	7.06	6.76	6.03
CONTROL	64	16.16	5.96		

When gains by boys and girls in the homework group were compared in each round, no significant difference was found at the .05 level. Boys receiving homework in round 1 gained 16.69 and the girls 15.25 test items. In round 2 the boys gained 21.52 compared with 22.92 by the girls.

TABLE XI

GAINS BY BOYS AND GIRLS IN THE HOMEWORK GROUP COMPARED

	NUMBER OF STUDENTS	MEAN GAIN	S.D.	DIFFERENCE IN MEANS	VALUE OF "t"
ROUND 1					
HOMEWORK	52	16.69	6.19	1.44	1.30
CONTROL	64	15.25	5.65		
ROUND 2					
HOMEWORK	83	21.52	7.44	1.40	1.12
CONTROL	67	22.92	7.06		

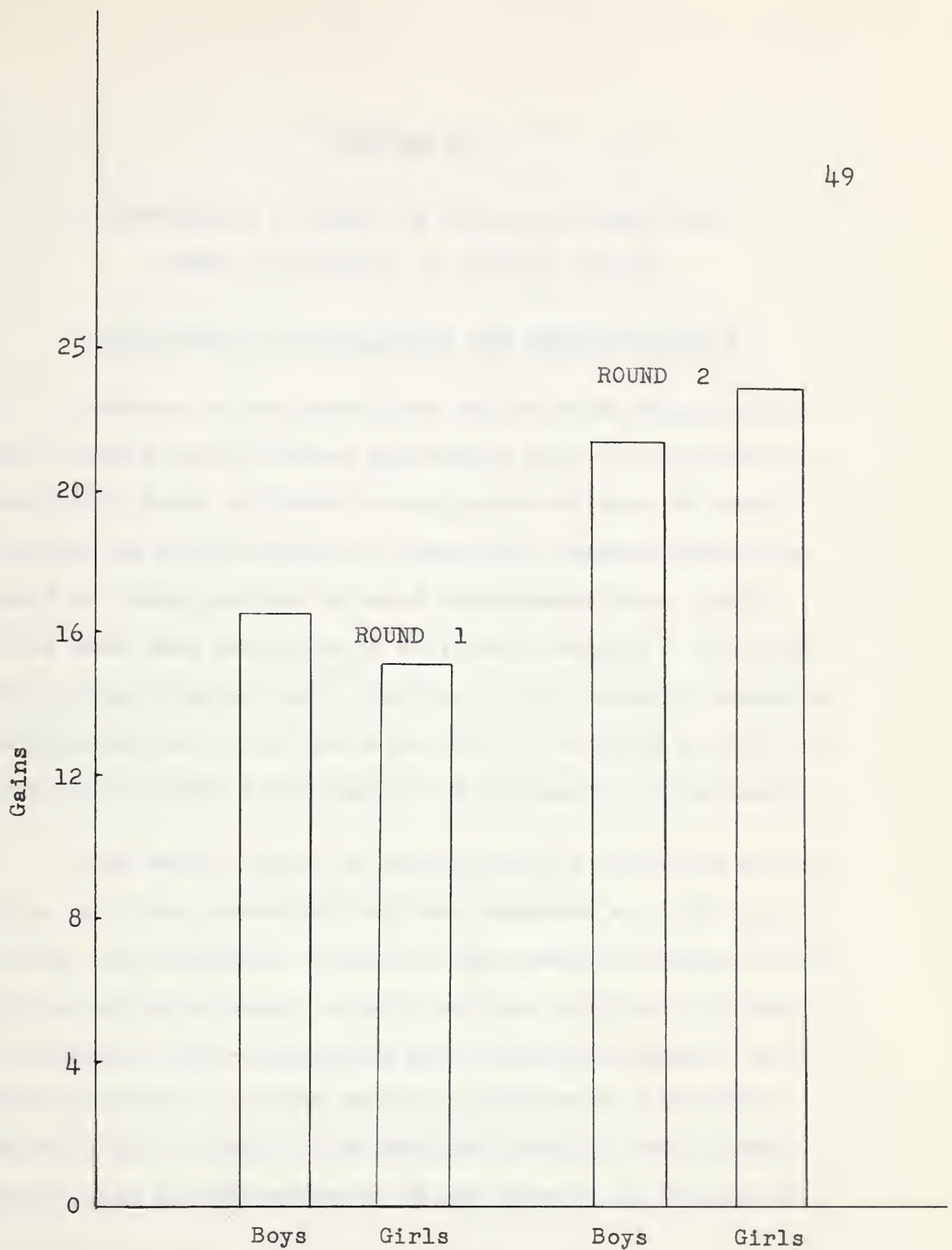


FIGURE 11

COMPARISON OF MEAN GAINS OF BOYS AND GIRLS
IN THE HOMEWORK GROUP

CHAPTER VII

HOMEWORK AS A FACTOR IN OVER-ACHIEVEMENT AND UNDER-ACHIEVEMENT BY CERTAIN PUPILS

Determining Over-achievers and Under-achievers

Neither of the tests used in the main experimental part of this study covered sufficient area of the course to accurately label a student as an under-achiever or over-achiever in social studies. Similarly, teacher evaluation would not have provided a valid measurement since pupils would have been evaluated by different teachers. The city-wide social studies test²² written by all grade IX students in Edmonton did cover the major part of the year's work and provided a common measurement of achievement in the course.

The decile rating of each student's raw score on the above test was determined and then compared with his I. Q. rating. A difference of four or more deciles between I. Q. rating and achievement on this test was arbitrarily chosen to designate over-achievement and under-achievement. An under-achiever, in other words, is defined as a student whose I. Q. is four or more deciles above his achievement decile, and an over-achiever is one whose I. Q. rating is

four or more deciles below his achievement decile. It was found using this criterion that there were twenty under-achievers and nineteen over-achievers.

Homework Habits of Over and Under-achievers

Student replies to the questionnaire on their homework habits revealed that the average time spent in studying for this specific test was 4.01 hours for all students in the experiment. The twenty under-achievers, on the other hand, averaged only 3.7 hours of study for the test and the over-achievers averaged 4.21 hours of preparation.

The estimate of time spent each week doing homework in social studies averaged 76.2 minutes per pupil. Replies of over-achievers to this question averaged 92.63 minutes while under-achievers averaged only 60.26 minutes.

The Regression Phenomenon

The regression effect is illustrated by the fact that a student who obtains a high score on one I. Q. test will generally receive a lower rating on subsequent tests, while one who obtained a below-average rating will tend to score higher when retested. A student who obtains a high rating on a single intelligence test, then, may appear to be an under-

achiever when in reality further testing would, in most cases, reveal a lower intelligence. Hence, the student might not actually be an under-achiever. The opposite effect occurs when a student who scores low on a single I. Q. test appears to be an over-achiever but who, in fact, probably obtained a score on the I. Q. test below his true intelligence.

In this regard it is interesting to note the I. Q. characteristics of the under-achievers and over-achievers in this study. The mean I. Q. of the over-achievers is 115.85 compared with 97.95 for the under-achievers. The mean I. Q. of all students in the study was 108.84. When the regression effect is taken into consideration, there is need for some caution in claiming that all students in these two groups were actually under and over-achievers. Furthermore, it was necessary to determine what effect the 17.9 difference in mean I. Q. ratings of these two groups might have on their homework practices. To test the relationship between intelligence and time spent on homework, the homework habits of the twenty students having the highest I. Q.'s were compared with those of the twenty lowest ability students. The highest I. Q. students averaged only 45.8 minutes per week on social studies homework and 3.85 hours preparing for the test. In contrast, the twenty students of lowest ability

averaged 144.5 minutes of homework in social studies per week and 4.8 hours studying for the test. Here, where the difference in I. Q. was greater than that between the over-achievers and under-achievers the difference in time spent was also greater.

Because of this apparent relationship between I. Q. and time devoted to homework and of the regression phenomenon explained earlier, results obtained in comparing the study practices of under-achievers and over-achievers must be considered inconclusive.

CHAPTER VIII

CONCLUSIONS DRAWN FROM THE EXPERIMENT

Conclusions Concerning Acquisition of Factual Knowledge

No significant difference existed in the mean I. Q's of the experimental and control groups (108.67 and 109.0), and mean scores obtained on the pre-tests showed that there was no significant difference in knowledge of subject matter at the beginning of either round.

A comparison of mean gains obtained on the final test favored the homework group by 2.83 items in round 1 (15.88 and 13.04). This difference was significant at the 0.05 level. However, the difference could have been attributed to factors other than the assignment of homework since the students were not matched individually on the basis of intelligence, achievement or sex. Furthermore, although three of the six teachers taught both a homework and a control class in the round, one teacher taught only in the homework group. This difference in teachers for the two groups could also have contributed to the difference in gains. However, in round 2 when all the classes and teachers exchanged roles as members of the experimental and control groups, the difference in mean gains again favored the homework group; this time by 5.64 test

items. Homework assignments, then, were considered to be the only factor operating which would account for the difference in gains.

Even though the difference in factual knowledge gained as a result of homework was statistically significant, it did not necessarily follow that the homework was educationally desirable in terms of the amount of increased knowledge compared with the time and effort required by both teachers and students. The amount of homework given in this experiment by no means represented a "crash" program since an average of only two assignments a week were given. More than this amount seemed impractical over a whole school year when the total homework load in all subjects was considered.

The difference in mean gain attributed to homework was 5.5 percent in round 1 and 11 percent in round 2. This greater gain by the homework group during the second round may have resulted from the specific type of assignments which required the student to find exact detailed facts as compared with the more general reading and vocabulary assignments used in round 1. The difference reveals the need for further study in this area which would test the effect of various kinds of homework on the acquisition of facts. Different types of assignments were used in this study, but no attempt

was made to evaluate the effectiveness of one type compared with another.

Although the homework assigned in this study did not prove to be a panacea for all student problems, there was some evidence that it had a practical but limited value in the acquiring of factual information. There was also some indication that different kinds of assignments produced better results than others.

Effect of Intelligence on the Benefits
Derived from Homework

Again, the validity of conclusions reached here must be limited by the fact that no attempt was made to assess the effectiveness of various types of homework on students of different intelligence levels. Nevertheless, the results obtained from the assignments used in this study were revealing.

Benefits derived by superior intelligence students

In the first round no significant difference in gains resulted when scores of superior intelligence students in the homework group were compared with those in the control group. In round 2, although a significant difference favored superior students receiving homework, the difference (4.4 test items)

was considerably smaller than that obtained in the average and low intelligence comparisons. On the basis of these comparisons, it was concluded that superior students gained less benefit from the homework assignments than did the average and lower intelligence students.

Value of homework to average intelligence students

In both rounds of the experiment students of this intelligence group made the greatest gains as a result of doing homework. In rounds 1 and 2 differences in gains of 2.52 and 7.03 test items were found significant at the .01 level. As a result, it was concluded that students of average intelligence benefited more than superior and low I. Q. students from homework of the type used in this study.

Value of homework to lower intelligence students

In the first round, the greater gain by lower I. Q. students receiving homework over those in the control group was significant at the .05 level only. There was, however, a significant difference in the I. Q. level ratings favoring the control group. In round 2, when they exchanged roles, the difference in gains of 6.3 favoring the homework group was significant at the .01 level. The variation in results in the two rounds by these students may have been affected by the difference in intelligence ratings. The significant

point was that this lower I. Q. group made the second largest gain as a result of homework in both rounds.

In studying the relationship between I. Q. rating and benefits derived from homework, the important findings were that in both rounds these three intelligence sub-groups ranked in the same order:

- (a) the average I. Q. group obtained the most benefit from the homework.
- (b) the low I. Q. group ranked second in benefits obtained.
- (c) the superior I. Q. group benefited least.

These conclusions are valid only for the homework used in this experiment and not as a general statement for all homework, since there was evidence of a relationship between the type of homework used and the results obtained.

Benefits Obtained from Homework by Boys and Girls

As was shown in Chapter V, no significant difference was found in the mean I. Q. ratings of boys and girls in any of the following comparisons. In both rounds, when gains of boys in the homework group were compared with those of boys in the control group, a significant difference favoring the homework group was found. Similar results were obtained

when mean gains of girls who received homework were compared. There was no evidence found to indicate a difference between the results obtained by boys who do regular homework and that obtained by girls.

Homework as a Factor in Over-achievement
and Under-achievement

There appeared to be a correlation between over-achievement, under-achievement and time devoted to homework. The under-achievers averaged less time and the over-achievers devoted more time to homework than the average for all participating students. The difference in achievement, however, may be partly due to their general attitude toward school work. In that case the amount of time spent doing homework would be merely one indication of this attitude and not the only factor producing the difference. When the influence of the regression effect on the I. Q. characteristics of the over-achievers and under-achievers and the relationship appearing to exist between I. Q. and time devoted to homework are considered, it is extremely difficult to draw valid conclusions in this aspect of the experiment.

CHAPTER IX

A STUDY OF THE STUDENT QUESTIONNAIRE RELATING TO HOMEWORK PRACTICES

Students were asked to complete a questionnaire²³
at the end of the study in order to obtain further information relating to homework.

Homework Habits of Students in this Study

TABLE XII

RESPONSES OF STUDENTS TO QUESTIONNAIRE ITEM 3
REGARDING THEIR HOMEWORK HABITS

STATEMENTS IN QUESTIONNAIRE ITEM 3	NUMBER OF STUDENTS RESPONDING		
(a) I DO PRACTICALLY NO HOMEWORK OR STUDYING OUTSIDE CLASS	6.01%	-	16
(b) I DO HOMEWORK ONLY WHEN THE TEACHER ASSIGNS IT	11.28%	-	30
(c) I DO HOMEWORK ASSIGNED BY THE TEACHER, BUT I ALSO STUDY ON MY OWN WHEN THE TEACHER TELLS US WE ARE GOING TO HAVE A TEST	63.16%	-	168
(d) STUDYING AT HOME IS A REGULAR PART OF MY WEEKLY ROUTINE WHETHER THE TEACHER ASSIGNS IT OR NOT	12.78%	-	34
NO RESPONSES	6.77%	-	18

Table XII reveals the homework practices of these students in general terms. In the great majority of cases homework is apparently done only when pressure is exerted directly by the teacher through assigned homework or indirectly as they prepare for specific tests. Only thirty-four of the 266 students stated that they did voluntary homework which could be termed a long-range plan of study. For most pupils voluntary homework takes the form of spasmodic short-term study prompted by an impending examination. In terms of estimated time devoted to homework, students in this study averaged 76.2 minutes per week doing homework in social studies, and a total of five hours in all subjects combined.

TABLE XIII

AVERAGE NUMBER OF EVENINGS PER WEEK IN WHICH
STUDENTS CLAIM TO DO HOMEWORK

NUMBER OF EVENINGS PER WEEK	NUMBER OF STUDENTS WHO STUDY		
0	36	-	13.53%
1	18	-	6.77%
2	35	-	13.16%
3	44	-	16.54%
4	39	-	14.66%
5	55	-	20.68%
6	20	-	7.52%
7	2	-	.75%
NO RESPONSE	17	-	6.47%

A wide range of homework practice is revealed in Table XIII by the number of evenings in which homework is done. A contradiction seems to be evident here: only sixteen students claim to do no homework outside class (Table XII), but thirty-six do not devote a single evening per week to homework.

137 of the students had a regular homework time in the evening while 116 had no special time for studies. 208 respondents stated that they had a quiet room of their own in which they could study. Forty-eight did not. These figures contrast with R. E. Shaul's survey²⁴ in which he concluded that an unsuitable homestudy environment was a major factor in the homework problem in Alberta. Although students from three distinct socio-economic districts were included in this study, the sample was taken entirely from city schools. Shaul, on the other hand, drew his sample from a province wide population.

Student Evaluation of Homework

When students were asked to evaluate homework in relation to improvement in school marks, less than one-half felt that it helped very much. The figures in Table XIV

²⁴

Shaul, op. cit., p. 87.

bear out Shaul's finding that a fairly large proportion of students have serious doubts about the value of homework.

TABLE XIV

STUDENT EVALUATION OF HOMEWORK IN
IMPROVING SCHOOL MARKS

STATEMENT IN QUESTIONNAIRE	NUMBER OF STUDENTS RESPONDING
"DO YOU THINK THAT THE TIME YOU SPEND DOING HOMEWORK IMPROVES YOUR MARKS IN SCHOOL?"	
(a) VERY MUCH	110 - 41.35%
(b) NOT SURE	68 - 25.56%
(c) ONLY A LITTLE	73 - 27.44%
(d) NOT AT ALL	3 - 1.13%
NO RESPONSE	12 - 4.51%

Parents Attitudes Toward Homework

Compared with Education of Parent

Students were asked to place each of their parents in one of three categories based on level of education:

(a) grade 1-8, (b) grade 9-12, (c) university. The attitudes of the parents toward homework were determined by responses of students to questionnaire item 7. "Do your parents

insist that you study regularly even if you have no assigned homework?" Of the 250 students who answered this question 119 answered "yes", 115 answered "no" and sixteen gave a qualified response.

When parent attitude was checked against level of education, the figures showed no apparent difference in attitudes toward homework except where both parents had a university education. In this regard Shaul²⁵ found no difference in attitude of parents of different occupational groups. At all levels of education except university, approximately one-half the parents showed an active interest in the homework done by the students. University educated parents, however, showed much more concern as indicated by the considerably higher proportion who insisted that their children study regularly at home.

²⁵
Ibid., p. 75.

TABLE XV

COMPARISON OF EDUCATION LEVEL OF PARENTS WITH
PARENT ATTITUDE TOWARD HOMEWORK

EDUCATION OF PARENTS	NUMBER OF PUPILS RESPONDING TO QUESTIONNAIRE ITEM 7.			
	"DO YOUR PARENTS INSIST THAT YOU STUDY REGULARLY EVEN IF YOU HAVE NO ASSIGNED HOMEWORK?"			
	YES		NO	
(a) BOTH UNIVERSITY EDUCATED	13 - 76.5%		4 - 23.5%	
(b) ONE PARENT UNIVERSITY ED.	22 - 56.4%		17 - 43.6%	
(c) BOTH HIGH SCHOOL EDUCATED	48 - 48.5%		51 - 51.5%	
(d) ONE HIGH SCHOOL EDUCATED - ONE PUBLIC SCHOOL	20 - 46.6%		22 - 52.4%	
(e) BOTH PUBLIC SCHOOL	28 - 56.0%		22 - 44.0%	

Similarly, an attempt was made to determine whether parents who were not educated in Canada (European and British) took a more serious attitude toward homework. Responses of the thirty-one students in this group showed no evidence which would indicate a different attitude on the part of foreign-educated parents and those educated in Canada.

Homework Assignment Practices of the Teachers

The attitudes toward homework of the six participating teachers are reflected in the frequency with which they assign homework. The fact that in seven of the nine classes

the majority of students estimated that the teacher assigned homework only "occasionally" indicates some doubt about its value on the part of these teachers. An analysis of the homework-attitude questionnaire answered by these teachers also showed that they generally favored homework within limitations.

TABLE XVI

CLASS ESTIMATES OF FREQUENCY OF HOMEWORK
ASSIGNMENTS IN SOCIAL STUDIES

CLASS	NUMBER OF STUDENTS WHO RESPONDED TO QUESTIONNAIRE ITEM 9			
	"MY SOCIAL STUDIES TEACHER ASSIGNS HOMEWORK"			
	(a) NEVER	(b) RARELY	(c) OCCASIONALLY	(d) REGULARLY
1	0	10	20	0
2	0	1	19	4
3	0	0	9	20
4	0	14	15	0
5	0	0	30	0
6	0	0	17	0
7	0	1	22	0
8	0	2	28	0
9	0	0	3	27
TOTALS	0	28 - 11%	163 - 64.2%	63 - 24.8%

CHAPTER X

RECOMMENDATIONS

This study has attempted to find answers to only a few of the pertinent questions which must be resolved in order to properly assess homework as an integral part of the school program. A complete evaluation, even in terms of learning factual knowledge only, is not possible on the basis of the findings since the following important questions remain unanswered.

1. What is the effect on the acquisition of factual knowledge when different types of homework are used?

The gains attributed to homework in this study were greater in round 2 than in round 1. Because various types of assignments were used in each round, the need for further study to assess these and other kinds of homework assignments is indicated.

2. Are certain types of homework more valuable for students of low, average, or superior intelligence?

The value of any kind of homework must be assessed in terms of "valuable for whom?" A slow student may need remedial homework in order to catch up to the rest of the class; a superior student may require an assignment to

maintain his interest and enrich his experience. Homework must be tailor-made to fit the individual needs of students who vary greatly in achievement and intelligence. This can be done only as further studies of an experimental nature reveal the effectiveness of a given type of assignment in meeting a specific need.

3. What are the effects of homework when a student is taught proper study habits and techniques?

One cannot place accurate limitations on the value of homework until it has been tested where students have been taught how to study. Any device must be tested in the hands of a person trained in its use before its true value can be measured. In other words, the potential merits of homework may be far greater than its apparent value.

These and other questions remain unanswered, but it is hoped that this study has made a small contribution to the much needed information and has pointed out areas where further study is required. Although much of the data is incomplete, the following positive recommendations may be worthy of consideration:

1. Additional research of an experimental nature should be undertaken immediately to fill the gaps in our knowledge about the merits of homework.

2. The homework used in this experiment appeared to have limited benefits. In view of this, teachers dare not depend on homework to take the place of classroom instruction in teaching any area of grade IX social studies, nor should they expect that information not learned in the classroom will be obtained by assigning homework.

3. Because students of different intelligence levels did not benefit equally from homework, specific assignments for the needs of individual students should be more widely used in place of the more typical single assignment for the whole class.

4. Students should be given more instruction in how to study in order to derive maximum benefit from homework.

5. Homework requiring specific factual information of the type used in the second round of the experiment produced better results on a short-answer test. Since the grade IX departmental examination is based on this kind of question, assignments of this nature should be stressed for final examination preparation.

6. Parents requesting extra homework for their children should be made aware of the limitations of this learning technique.

APPENDIX A

TEST USED TO MEASURE

GAINS IN

UNIT II (ROUND 1)

SOCIAL STUDIES UNIT II

NAME _____

CLASS _____

1. In each space to the right of the Result column, write the number of the CAUSE that produced the RESULT.

CAUSE	RESULT
(1) The government was afraid of the growing strength of trade unions	Combines Investigation Act (1923) (____)
(2) Mill owners were disregarding laws passed to regulate and control child labor	Combination Act (1799) (____)
(3) Employers were taking advantage of an old law to keep wages low	Factory Act (1833) (____)
(4) High tariffs on foreign grain had raised the price of bread in Britain	Ten Hours Bill (1847) (____)
(5) Corporations were making common agreements to avoid competition and to keep prices high	Repeal of the Corn Laws (1846) (____)
(6) The movement of workers within the Dominion was making it necessary for the Federal government to pass labor legislation supplementing that of the provinces	First Reform Bill (____)
(7) The government considered it necessary to further limit the conditions of employment of children	Fair Wages and Hours of Labor Act (1935) (____)
(8) People without a vote were demanding a voice in government	Alberta Labor Act (1947) (____)
(9) Adults were demanding a shorter working day	Poor Law Amendment Act (1834) (____)

- (10) The need arose for consolidation existing labor legislation into a single act New Dominion Election Act (1920) (___)
- (11) The idea was growing that all adults should have the franchise, regardless of sex or property holdings

2. In each space to the right of column II write the number of the name in column I which is most closely associated with the matching statement.

Column I	Column II
(1) Lord Shaftsbury	A journalist whose writing helped bring about passage of the First Reform Bill (___)
(2) Robert Owen	
(3) William Cobbett	An owner who improved conditions in his own mills and was largely responsible for passage of the Factory Acts (___)
(4) Francis Place	
(5) Robert Peel	
(6) Samuel Gompers	A british Member of Parliament who fought to improve conditions in factories, mills and mines (___)
(7) James Kier Hardie	
(8) Ramsay McDonald	A statesman who repealed the Corn Laws which lowered the price of bread in Britain (___)
(9) Claude Jodoin	
(10) Clement Atlee	A man who pioneered the trade union movement in America (___)
	Organizer of the Labor political party in Britain (___)
	Britain's first Labor Prime Minister (___)

3. Name four pieces of social legislation affecting workers enacted by the federal government of Canada

- (1) _____
- (2) _____
- (3) _____
- (4) _____

4. In the spaces provided below explain each of the following terms

- (a) closed shop
- (b) arbitration
- (c) concilliation
- (d) lockout
- (e) negotiation
- (f) vertical union

5. Each of the following statements refers to some aspect of labour problems. In the brackets to the right place the number of the best completion for each statement.

(a) Collective bargaining refers to

- (1) a method of shopping used by a consumer's organization
- (2) the right of each worker to bargain individually with an employer
- (3) the right of employers to set the wages of their employees
- (4) the right of workers to form a union
- (5) the right of workers to bargain with an employer as a united body (____)

(b) The provinces of Canada gained the right to legislate their own labour laws by the passage of

- (1) the Alberta Labour Act of 1947
- (2) the Great Reform Bill of 1832
- (3) the Provincial Factories Act of 1917
- (4) the British North America Act of 1867 (____)

(c) The Alberta Labour Act is administered by

- (1) a conciliation commissioner
- (2) the Minister of Industries and Labour
- (3) the provincial Board of Industrial Relations
- (4) the Lieutenant-Governor in Council (____)

- (d) The Alberta Labour Act (1947) is
- (1) a combination of all provincial labour legislation passed before 1947
 - (2) labour legislation requested by a joint conference of labour unions, employers' associations and government representatives
 - (3) a copy of the labour legislations passed in Great Britain
 - (4) labour legislation requested by national and international unions ()
- (e) By 1884 the working man had received the right to vote in Britain and thereby
- (1) formed a government
 - (2) won even more favorable legislation
 - (3) dissolved the unions
 - (4) over-organized workers
 - (5) declared a strike ()
- (f) Regulations of labour by legislation was deferred in Alberta because
- (1) workers received good wages in pioneer days
 - (2) Alberta was primarily an agricultural province
 - (3) a depression made men more anxious about jobs than working conditions
 - (4) Canadian unions were supported by those in the United States ()
- (g) According to the Alberta Labour Act
- (1) a strike may be called by a labour union if its bargaining agent fails to reach an agreement with the employers
 - (2) a strike or lockout is illegal
 - (3) a strike is unlawful unless conciliation and arbitration have been attempted
 - (4) a strike is lawful as long as conciliation has been attempted ()
- (h) The repeal of Combination Laws in Great Britain meant
- (1) that the formation of trade unions became unlawful
 - (2) that the formation of trade unions became lawful
 - (3) that the formation of employers' associations became illegal
 - (4) that the formation of employers' associations became legal ()

- 5 -

(i) Today there is a danger of unions

- (1) Becoming too powerful
- (2) disappearing
- (3) becoming weak
- (4) declaring strikes illegal ()

(j) The British Labour Party was first organized in

- (1) 1946
- (2) 1900
- (3) 1924
- (4) 1832 ()

6. Some of the following statements are true, others are false. Mark T. or F. in the bracket following each statement.

- (1) The federal government in Canada has no authority to make laws regulating wages and hours of work in Canada. ()
- (2) The decision reached by an arbitration board is called an award. ()
- (3) A union which is organized on the basis of a trade e.g. the Electrician's union is called a vertical union. ()
- (4) Recently Canada's two biggest unions, the Trades and Labor Congress and the Canadian Congress of Labor joined forces under the name Canadian Federation of Labor. ()
- (5) The first international union was the Union of Typographical Workers. ()
- (6) According to the Alberta Labor Act no person under eighteen years of age may be employed full-time. ()
- (7) The Trades and Labor Congress is a Canadian union of skilled workers. ()
- (8) Samuel Gompers believed in unions of skilled workers only. ()
- (9) In Alberta no person may work more than forty hours without receiving overtime pay. ()
- (10) Both the employer and the employed contribute to the Workmen's Compensation fund. ()

APPENDIX B

TEST USED TO MEASURE

GAINS IN

UNIT III (ROUND 2)

SOCIAL STUDIES UNIT III

GRADE IX

NAME _____

1. In the space to the right of each statement in Column II write the number corresponding to the name of the man in Column I to whom it applies.

Column I

Column II

- | | |
|-----------------------|---|
| 1. Jefferson | (a) He blazed a trail through the Cumberland Gap into Kentucky |
| 2. Clarke | |
| 3. Austin | |
| 4. Boone | (b) He was one of the two men who led a party to explore a new territory which the United States wished to add to its possessions |
| 5. Sutter | |
| 6. Harrod | |
| 7. Houston | (c) He led American settlers into Texas |
| 8. Oglethorpe | |
| 9. Sir Walter Raleigh | (d) The discovery of gold on his land led to the settlement of California |
| 10. Polk | |
| 11. Stuyvesant | (e) As President of the United States, he arranged for the purchase of Louisiana |
| | (f) He led a group of settlers through the Cumberland Gap into Kentucky in 1774 |
| | (g) The first President of the Lone Star Republic (Texas) |

- II. Place the word or words, in the blank space, which best answer the statement.

1. The Colony just north of North Carolina.
2. The island on which Raleigh attempted to settle.

- 2 -

3. He was granted the right to settle in Georgia.....
4. A religious group persecuted by James I
of England.
5. The capital of Maryland named after its
founder.
6. He was dissappointed with the clergy
rule in Massachusetts.
7. Explored on behalf of the Dutch in
North America.
8. A rule in the establishment of
the Georgia colony.
9. He established Maryland.
10. Settled New Amsterdam for the Dutch.
11. He started the Quaker Colony.
12. The first group to successfully settle
in North America for the British.
13. Established a colony in the fertile
Connecticut Valley.
14. He was sent out to rule new land
captured by the Dutch in North America.
15. A first successful crop in the
British North American colonies.

III. In the space after each statement write "True" or "False".

1. Between 1890 and 1920 the majority of immigrants to
the United States came from southern and eastern
Europe. _____
2. The United States was justified in sending troops
into Mexican territory in 1846 to protect
American Citizens. _____
3. From 1783 to 1860 there were no restrictions on
immigration to the United States. _____

- 1. The first section of the report is devoted to a general survey of the situation in the country.
- 2. The second section contains a detailed account of the work done during the year.
- 3. The third section is devoted to a summary of the results of the work.
- 4. The fourth section contains a list of the names of the persons who have taken part in the work.
- 5. The fifth section is devoted to a summary of the conclusions reached.
- 6. The sixth section contains a list of the names of the persons who have taken part in the work.
- 7. The seventh section is devoted to a summary of the conclusions reached.
- 8. The eighth section contains a list of the names of the persons who have taken part in the work.
- 9. The ninth section is devoted to a summary of the conclusions reached.
- 10. The tenth section contains a list of the names of the persons who have taken part in the work.
- 11. The eleventh section is devoted to a summary of the conclusions reached.
- 12. The twelfth section contains a list of the names of the persons who have taken part in the work.
- 13. The thirteenth section is devoted to a summary of the conclusions reached.
- 14. The fourteenth section contains a list of the names of the persons who have taken part in the work.
- 15. The fifteenth section is devoted to a summary of the conclusions reached.
- 16. The sixteenth section contains a list of the names of the persons who have taken part in the work.
- 17. The seventeenth section is devoted to a summary of the conclusions reached.
- 18. The eighteenth section contains a list of the names of the persons who have taken part in the work.
- 19. The nineteenth section is devoted to a summary of the conclusions reached.
- 20. The twentieth section contains a list of the names of the persons who have taken part in the work.

- 3 -

4. The success of the Massachusetts colony was due mainly to its fine soil and climate of the region. _____
5. The first attempts by the British to settle in North America were unsuccessful because of the hostility of the Indians. _____
6. New York was once a Dutch colony named New Amsterdam. _____
7. The western prairies were not practical for farming until the building of railways brought them within reach of markets. _____
8. The acquisition of additional territory by the United States was usually through the purchase of land. _____
9. In all, five states were carved out of the old North-West Territories. _____
10. The Texans were justified in declaring their independence from Mexico. _____



On the map above, are indicated territories which were acquired by the United States in its Expansion westward.

- 4 -

- A. In the spaces in Column I, below, write the names of territories numbered 1 - 6 on the map.
- B. In Column II, opposite each name you have listed, write the appropriate number of each territory indicated on the map.

Column I

Column II

(a).....
(b).....
(c).....
(d).....
(e).....
(f).....

5. In the brackets to the right, place the number of the best completion for each statement.
1. The approximate number of people who immigrated to the United States between 1820 and 1920 was:
 - (a) 100,000,000
 - (b) 40,000,000
 - (c) 3,000,000
 - (d) 4,600,000

 2. Many Italian immigrants became farmers in:
 - (a) New York
 - (b) Indiana
 - (c) Minnesota
 - (d) California

 3. Most English speaking immigrants came to the U. S. A.
 - (a) because of the opportunities for work
 - (b) because of religious persecution
 - (c) because of political persecution
 - (d) because of the higher standard of living there

4. The largest number of immigrants to the U. S. A. came from
 - (a) Germany
 - (b) British Isles
 - (c) Italy
 - (d) Scandinavia

5. Most of the Germans settled:
 - (a) in the mid-western states
 - (b) along the Atlantic coast
 - (c) in Minnesota and the Dakotas
 - (d) around New York

6. The Scandinavians who came to the United States came mainly:
 - (a) because of political struggles
 - (b) because of the shortage of land
 - (c) because of constant wars with each other
 - (d) because Sweden took over Denmark.

7. In colonial times the "West in America referred to:
 - (a) the Pacific coast
 - (b) the prairies
 - (c) land just beyond the Appalachian mountains
 - (d) Texas and Arizona

8. The Northwest Territory was a region:
 - (a) North of the Ohio river
 - (b) in Northern Canada
 - (c) which included Washington and Oregon
 - (d) drained by the Mississippi river.

9. The chief reason for the hasty western movement in the United States was a desire:
 - (a) for gold
 - (b) for cheap land
 - (c) for greater freedom
 - (d) to occupy the interior before some other country did

10. The Homestead Act of 1862 provided:
 - (a) western lands as low as \$1.25 an acre
 - (b) 160 acres of land free after working it for five years
 - (c) 160 acres of free land
 - (d) a government loan to immigrants to help them settle in the West

11. The United States acquired Florida:
- (a) by conquering the Seminole Indians who occupied it
 - (b) from the Seminoles for \$24.00 worth of trade goods
 - (c) from Spain for \$5 million
 - (d) by settlement of the country
-
12. The first transcontinental railway in the United States was completed in:
- (a) 1838
 - (b) 1869
 - (c) 1889
 - (d) 1909
13. The United States acquired the Louisiana Territory:
- (a) from Spain in 1803
 - (b) from Napoleon for \$15 million
 - (c) as part of the terms of the peace treaty between the U. S. and Mexico
 - (d) by driving the French out of the Mississippi valley
-
6. State briefly the terms of the North West Ordinance of 1787 under the following headings.
- (a) control of the "Territory" (by whom)
 - (b) provisions for political development of the "Territory"
 - (c) provisions for orderly settlement:

APPENDIX C

QUESTIONNAIRE ANSWERED BY STUDENTS

AT THE COMPLETION OF

THE EXPERIMENT

SURVEY QUESTIONNAIRE OF HOMEWORK AND STUDY PRACTICES
OF GRADE IX STUDENTS

Name..... School.....

Explanation: Below you will find questions relating to homework and home study. You are asked to answer each one as it applies to you. This information will in no way affect your Social Studies mark and will not be used in any way by your teacher.

Please answer as accurately as you can. If you wish to write fuller explanations, use the blank space at the end, numbering your statements according to questions.

1. How much time (outside class) did you spend studying for the Easter Social Studies examinationhours.
2. This year how many minutes per week have you spent on the average, studying outside class. This includes homework assigned by your teachers and any studying you do on your own.
 - (a) In all school subjectsminutes per week.
 - (b) In Social Studies.....minutes per week.
3. Place a check mark after the statement below, which most accurately describes your homework habits.
 - (a) I do practically no homework or studying outside class.
 - (b) I do homework only when the teacher assigns it.....
 - (c) I do homework assigned by the teacher, but I also study on my own when the teacher tells us we are going to have a test
 - (d) Studying at home is a regular part of my weekly routine whether the teacher assigns it or not.....
4. How many nights each week do you regularly study?.....
5. Do you have a quiet room of your own in which you can do your homework and studying?
6. Do you have a regular time in the evening when you do your studying or homework(yes or no).....If so, when?....

7. Do your parents insist that you study regularly even if you have no assigned homework?.....
8. Do you think that the time you spend doing homework improves your marks in school? Check one.
 - (a) Not sure.....
 - (b) Very much.....
 - (c) Only a little.....
 - (d) Not at all.....
9. Your Social Studies teacher assigns homework:
 - (a) never.....
 - (b) rarely.....
 - (c) occasionally.....
 - (d) regularly.....
10. What is your father's occupation?.....
11. Did your parents receive their education in Canada?
Father..... Mother.....
If not, where?.....
12. Have you received all your education in Canada?.....
If not, where else?.....
13. Were your parents born in Canada?.....
If not, how long have they lived in Canada?.....
14. Education of father: Education of Mother:
 - (a) Gr. 1 - 8 (a) Gr. 1 - 8.....
 - (b) Gr. 9 - 12 (b) Gr. 9 - 12
 - (c) University..... (c) University.....

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.....	100

APPENDIX D

QUESTIONNAIRE USED TO DETERMINE

TEACHER ATTITUDES

TOWARD HOMEWORK

CHECK-LIST FOR ANALYSIS OF BELIEFS ABOUT THE
VALUE OF HOMEWORK IN JUNIOR HIGH SCHOOL

I. Explanation

These statements have been selected as representing numerous points of view about homework in the Junior High School.

II. Directions

Use the following scale to indicate your response to each statement of belief.

- 0 Meaning is not clear
- 1 Definite agreement
- 2 Qualified agreement
- 3 Undecided
- 4 Qualified disagreement
- 5 Definite disagreement

Please circle one response in accord with the above scale on each of the statements. Sample: 0 1 2 3 4 5.

Note that zero means you do not find the meaning clear while figure 3 means you are undecided upon your belief on the issue.

PLEASE MARK THE RESPONSE YOU WOULD PROVIDE IN MEETING SUCH A STATEMENT IN NORMAL DISCOURSE

III. Statements of belief

- 0 1 2 3 4 5 1. The school day is not long enough for students to master the subject matter contained in the Junior High Social Studies course.
- 0 1 2 3 4 5 2. Homework has a moral value in that it helps students develop self-discipline.
- 0 1 2 3 4 5 3. Homework teaches self-direction and develops responsibility because students are on their own in out-of school work.
- 0 1 2 3 4 5 4. Parents feel that the schools are not doing an adequate job if homework is omitted.

- 2 -

- 0 1 2 3 4 5 5. Homestudy enriches the school program and extends classroom experiences.
- 0 1 2 3 4 5 6. Homework is unnecessary if the curriculum provides varied and stimulating classroom experiences.
- 0 1 2 3 4 5 7. If students receive individual attention during the school day in developing fundamental skills homework is unnecessary.
- 0 1 2 3 4 5 8. Homework takes time that could be devoted to developing constructive leisure-time activities.
- 0 1 2 3 4 5 9. Homework is too often merely repetitious busy work and wastes both the students' and teachers' time.
- 0 1 2 3 4 5 10. Homework is necessary to provide sufficient practice in new skills and retention of new knowledge.
- 0 1 2 3 4 5 11. Students spend sufficient time in school and need the rest of the day for other activities.
- 0 1 2 3 4 5 12. Homework creates a dislike for school work and thus hinders good pupil-teacher relationships.
- 0 1 2 3 4 5 13. Those who do the most homework need it least.
- 0 1 2 3 4 5 14. Homework develops self-reliance on the part of the student.
- 0 1 2 3 4 5 15. Homework is often harmful because students forget how to do assignments and practice wrong methods of doing things, instead of the correct ones.
- 0 1 2 3 4 5 16. Often students do not do their own homework but get help from others.
- 0 1 2 3 4 5 17. Students in general are doing too much homework.
- 0 1 2 3 4 5 18. Homework is of greater value in mathematics than in social studies.

APPENDIX E

INSTRUCTIONS TO TEACHERS

INSTRUCTIONS TO TEACHERS

1. The topics to be covered in Round I of the experiment are parts I and II of Unit II.

I. Organization and Regulation of Labor.

II. Historical Background of Regulation of Working Conditions.

2. It is necessary, for the validity of the experiment, that each class spend an equal length of time on the work. Please plan this section so that the work will be finished in five weeks. If you feel that this is not sufficient time, please try to cover it in five weeks and then, if necessary, go back for more detail after the final test.
3. The homework assignments are designed mainly to make students read their textbooks for specific information. Page numbers are given in each homework assignment to assist weak students in getting homework done in reasonable time.
4. Some assignments can be given as pre-reading of the text by students before the topic is taken up in class. Others are designed to review work already covered in class.
5. If you find that marking the tests and homework assignments will be a chore, I will be pleased to mark them for you.
6. Use the homework assignments as you see fit but please assign all of them. You may substitute assignments of your own if you wish.
7. The same test will be used for the pre-test and final test so no copies should be available to students during the round.
8. Forms are provided on which to record the marks and other pertinent information.

APPENDIX F

HOMEWORK ASSIGNMENTS USED

IN UNIT II (ROUND 1)

Read pages 309 - 312 in your Social Studies textbook. From your reading list five examples of the bad conditions under which people worked in British mines and factories.

1.

2.

3.

4.

5.

Read pages 309 - 314 in your textbook. On these pages you will read about five men who made important contributions to the welfare of workers in the early days of the Industrial Revolution. Fill in the grid below using the information in the text.

NAME OF THE REFORMER	HIS OCCUPATION OR POSITION IN LIFE	REFORM(S) HE HELPED BRING	YEAR OF THE REFORM	ONE TERM OF EACH REFORM

Many terms used in this section of Social Studies are unfamiliar to you.

Several of these new terms have "specialized" meanings which you must be sure to know in order to fully understand the work.

Listed below are ten of these terms followed by the number of the page in your text on which they are used.

Look up the page, find the term, and explain its meaning as it is used there. Usually the meaning can be found by reading the paragraph in which it is used. If necessary, however, look up the word in your dictionary.

1. legislation (311)
2. social legislation (317)
3. reform (312)
4. franchise (313)
5. Royal Commission (311)
6. craft guilds (317)
7. collective action (318)
8. picket-line (319)
9. international (320)
10. a "trade" (321)

(4)

Read pages 318 - 322 in Canada in the Western World to find answers to the following questions:

- (1) Who organized the Labor political party in Britain?
- (2) Who was the first labor Prime Minister in Britain ?
- (3) Were trade unions ever illegal in Canada?
- (4) Which were the first real trade unions in Canada?
- (5) What Act made trade unions legal in Canada?
- (6) Who was the man who contributed most to the organization of trade unions in the U.S.A.?
- (7) Which Canadian trade union holds the belief that trade unions are for skilled workers.
- (8) Which two large Canadian unions have amalgamated into one union known as the Canadian Labor Congress?

Listed below are ten more terms found in this section of Social Studies. Each is followed by the page in your text on which it can be found.

Explain the meaning as it is used there by reading the paragraph in which it is found.

1. industry (321)
2. vertical union (321)
3. collective bargaining (322)
4. lockout (322)
5. laid off (323)
6. horizontal union (320)
7. vertical union (321)
8. arbitration award (322)
9. employee (322)
10. employer (322)

1. The first part of the report is devoted to a general survey of the situation in the country.

2. The second part contains a detailed analysis of the economic situation, with special reference to the agricultural sector.

3. The third part deals with the social and cultural aspects of the country's development.

4. The fourth part discusses the foreign relations of the country and its role in the international community.

5. The fifth part contains conclusions and recommendations for the future development of the country.

6. The sixth part is a summary of the main findings of the report.

7. The seventh part contains a list of references and sources used in the preparation of the report.

8. The eighth part is a list of the names of the authors and the institutions to which they belong.

9. The ninth part contains a list of the names of the members of the committee that has approved the report.

10. The tenth part is a list of the names of the members of the committee that has recommended the report for publication.

11. The eleventh part contains a list of the names of the members of the committee that has recommended the report for publication.

THE ALBERTA LABOR ACT

This assignment will help you review the Alberta Labor Act and its importance to Alberta workers. All the answers can be found in the textbook.

1. In one sentence, tell the chief purpose of the Alberta Labor Act (p. 325).
2. Who administers (enforces) the terms of the Alberta Labor Act?
3. In what year was the Act passed?
4. Name the six parts of the Act and list one provision of each part (326). See Workbook (p. 17).

Part I.

Part II.

Part III.

Part IV.

Part V.

Part VI.

— 10 —

Journal of Management Education 30(6)

④ 注意：在计算过程中，如果分母出现负数，应将其变为正数，并相应地调整分子的符号。

1990

1980

On page 323 of the textbook you will find five examples of "social legislation" enjoyed by Alberta workers. List these and tell in one or two sentences how they benefit from each.

Try to find out whether the legislation was passed by the federal or provincial government in each case.

1.

2.

3.

4.

5.

Can you think of two other examples not listed?

1.

2.

(8)

The purpose of this assignment is to make sure that you have a clear understanding of "Collective Bargaining". If you are not sure of the answers, check pages 322 - 324 and pages 326 - 327 for information.

(1) Give the meaning of the term "collective bargaining"

(2) What three steps must be taken in collective bargaining before a strike is legal?

(1)

(2)

(3)

(3) Explain briefly what happens during each of these three steps.

(1)

(2)

(3)

APPENDIX G

HOMEWORK ASSIGNMENTS USED

IN UNIT III (ROUND 2)

Chapter 7 of your text, Canada in the Western World, deals with the settlement of the English in North America.

Below are listed the names of several of these British Colonies. In the space to the right of the name of each colony write the name of the man who was most responsible for its settlement.

Virginia _____

Maryland _____

Georgia _____

Pennsylvania _____

Connecticut _____

New York _____

Massachusetts _____

Rhode Island _____

- 2 -

By 1850 the United States had acquired nearly all the territory that makes up the present day United States of America.

However, before she could become a great nation, it was necessary to populate this vast country. Chapter 14 in your textbook tells the story of how the United States population grew from $3\frac{1}{2}$ million in 1850 to 150 million in 1950.

Summarize this information by filling in the grid below.

What countries did the people come from?	During which yrs. did they?	How many came?	Why did they come?	Where did they settle?	Contribution to American Culture?

- 3 -

England's first successful colony in North America was established in 1607. By 1763 Britain was in possession of the Atlantic coast, from Hudson's Bay to Florida. Pages 167 - 180 in your text tell the story of how part of this was accomplished.

Summarize this information by filling in the grid below.

Name of the Colony	Founder (s)	Year in which Colony was Founded	Reasons (s) for Success of the Colony

- 4 -

"The Ordinance of 1787 was one of the wisest pieces of legislation ever approved by Congress" (page 245 of your text). This North-West Ordinance laid down the pattern for the orderly settlement of the United States interior. This Act is also of interest to Canadians because many of its terms were copied by the Canadian government in settling the Canadian West.

1. What were the boundaries of the North-West territory referred to in this Ordinance?

North _____

South _____

East _____

West _____

2. How did the North-West Ordinance control the sale of public lands?

3. What three steps did newly settled regions take toward becoming states?

(a) _____

(b) _____

(c) _____

4. Which 5 states were eventually carved out of the territory?

- 5 -

Tell briefly when and how the United States acquired the following territories. (see map page 246 in your text)

1. The Louisiana Purchase.

2. California

3. Oregon

4. Gadsen Purchase

5. Texas

6. Florida

7. New Mexico and Arizona

Below is a list of men whose names you have encountered in your study of this section of Social Studies. In the space after each name write, in one sentence, a significant statement about him.

1. Sir Walter Raleigh (p. 163)
2. John Rolfe (p. 169)
3. John Smith (p. 168-9)
4. Daniel Boone (p. 242)
5. Peter Stuyvesant (p. 178)
6. Lewis & Clarke (p. 246)
7. William Penn (p. 180)
8. James Harrod (p. 242)
9. Steven Austin (p. 249)
10. John Sutter (p. 252)

APPENDIX H

SPRING TEST IN GRADE IX SOCIAL STUDIES

USED TO MEASURE

ACHIEVEMENT IN THE ENTIRE COURSE

SOCIAL STUDIES

I. Vocabulary -- Place the NUMBER of the word which best fits the definition in the space provided.

- (a) Tribal chief of the Aztecs (_____)
- (b) A group of mutually interdependent people residing in the same area (_____)
- (c) An imaginary line around the earth which receives the direct rays of the sun (_____)
- (d) A region of light pressure calms (_____)
- (e) An Argentine cowboy (_____)
- (f) The coniferous forest of the northern hemisphere (_____)
- (g) Frontiersmen in Brazil (_____)
- (h) Site of ancient Aztec city (_____)
- (i) Area settled by Mayas after movement from Guatemala (_____)
- (j) Representatives of a union negotiate with management (_____)
- (k) A plant which employs only union labor (_____)
- (l) The way of life of a group of people (_____)
- (m) The time when the sun's direct rays are on the equator making the day and night everywhere of equal length (_____)
- (n) A landed estate (_____)
- (o) Sun-dried brick (_____)
- (p) Colonial born Spaniards (_____)
- (q) A legal person created by law to do business (_____)
- (r) A fibre plant used for the making of rope and binder twine (_____)
- (s) A guarantee against risk of loss exceeding one's investment in a business (_____)
- (t) A share of profit distributed by a company (_____)
- (u) A combination formed to gain exclusive control of a product (_____)
- (v) A work stoppage because of a labor dispute (_____)
- (w) A small plateau (_____)
- (x) A racial group with "mixed" Spanish and Indian blood (_____)

- | | |
|--------------------------|-----------------------|
| 1. equinox | 16. strike |
| 2. creoles | 17. gaucho |
| 3. henequen | 18. culture |
| 4. limited liability | 19. mesa |
| 5. collective bargaining | 20. heat equator |
| 6. Tenochtitlan | 21. plaza |
| 7. mestizos | 22. closed shop |
| 8. corporation | 23. Yucutan Peninsula |
| 9. taiga | 24. profit |
| 10. dividend | 25. picketing |
| 11. community | 26. adobe |
| 12. hacienda | 27. Inca |
| 13. horse latitudes | 28. doldrums |
| 14. monopoly | 29. bandeirantes |
| 15. Montezuma | |

11 In the space provided, place the LETTER of the best description of the person listed.

- | | | |
|------------------------------|-----|--|
| 1. Sir Walter Raleigh | () | (a) Established a colony in Georgia |
| 2. Ponce de Leon | () | (b) Conquered the Incas |
| 3. Christopher Columbus | () | (c) First president of Chile |
| 4. Lord Baltimore | () | (d) Liberator of Colombia, Venezuela and Bolivia |
| 5. Vasco de Gama | () | (e) Led a group of settlers to what is now Texas |
| 6. James Oglethorpe | () | (f) Led settlers through the "Cumberland Gap" |
| 7. Pizarro | () | (g) Discovered the grand canyon |
| 8. Peter Minuit | () | (h) Military leader in the Virginia colony |
| 9. Bernardo O'Higgins | () | (i) Explored the Hudson River |
| 10. Benito Juarez | () | (j) Conquered the Aztecs |
| 11. Simon Bolivar | () | (k) Founded a colony in Santo Domingo |
| 12. Cabeza de Vaca | () | (l) Searched for the "Fountain of Youth" in Florida |
| 13. John Smith | () | (m) Founded a colony in Virginia |
| 14. Rev. Thomas Hooker | () | (n) Founded a colony in Maryland |
| 15. Coronado | () | (o) Sailed to India around the Cape of Good Hope |
| 16. Balboa | () | (p) Established a colony at New Amsterdam |
| 17. Cortez | () | (q) An Indian president of Mexico |
| 18. Stephen Austin | () | (r) First white man to view the Pacific Ocean |
| 19. Cabral | () | (s) Liberator of Argentina |
| 20. Orellana | () | (t) Established a Quaker colony in Pennsylvania |
| 21. San Martin | () | (u) Discovered the Mississippi River |
| 22. Henry Hudson | () | (v) Spent eight years among the Indians what is now Southern United States |
| 23. Daniel Boone | () | (w) A Portuguese who encouraged scientific navigation |
| 24. De Soto | () | (x) Explored the Amazon River |
| 25. William Penn | () | (y) Claimed Brazil for Portugal |
| 26. Prince Henry of Portugal | () | |
| 27. Quesada | () | |
| 28. George Washington | () | |
| 29. Valdivia | () | |

- | | |
|---|--|
| 1. The cold Labrador Current skirts the Atlantic coast of Canada. | (a) Combination Acts of 1799 were passed. (_____) |
| 2. The soil of the New England coast was rocky and unproductive. | (b) Corporations are formed and shares are sold to the public. (_____) |
| 3. Many factory owners and members of parliament were afraid of the growing strength of trade unions. | (c) The Mayas developed a higher level of civilization than the Indians of the central plains. (_____) |
| 4. High tariffs on foreign grain raised price of bread in Britain. | (d) Quito, Ecuador, located on the equator has a cool climate. (_____) |
| 5. Capital is required in large amounts to make large-scale production possible. | (e) The Alberta Labor Act (1947) was passed. (_____) |
| 6. Favorable climatic conditions insured an abundant supply of food. | (f) The climate of Halifax is more extreme than the climate of Vancouver. (_____) |
| 7. The need arose for consolidating existing labor legislation into a single act. | (g) The rapid settlement of California. (_____) |
| 8. The discovery of gold on John Sutter's farm. | (h) Shipbuilding and fishing became the chief industries in Massachusetts. (_____) |
| 9. Women and children were employed long hours in the mines in Britain. | (i) The Mines Act was passed in 1842. (_____) |
| 10. Latitude is a primary cause of climatic conditions although altitude is also an important factor to consider. | (j) Repeal of the Corn Laws 1846. (_____) |
| | (k) The coastal region of Peru is desert. (_____) |
| | (l) The Highlands of Brazil produce large amounts of coffee. (_____) |

IV. Use Map of North and South America

- (a) Line A represents _____
- (b) Line B represents _____
- (c) Line C represents _____
- (d) Line D represents _____
- (e) Line E represents _____
- (9) (f) Give location (longitude and latitude) of Arequipa, Peru. (approx.)

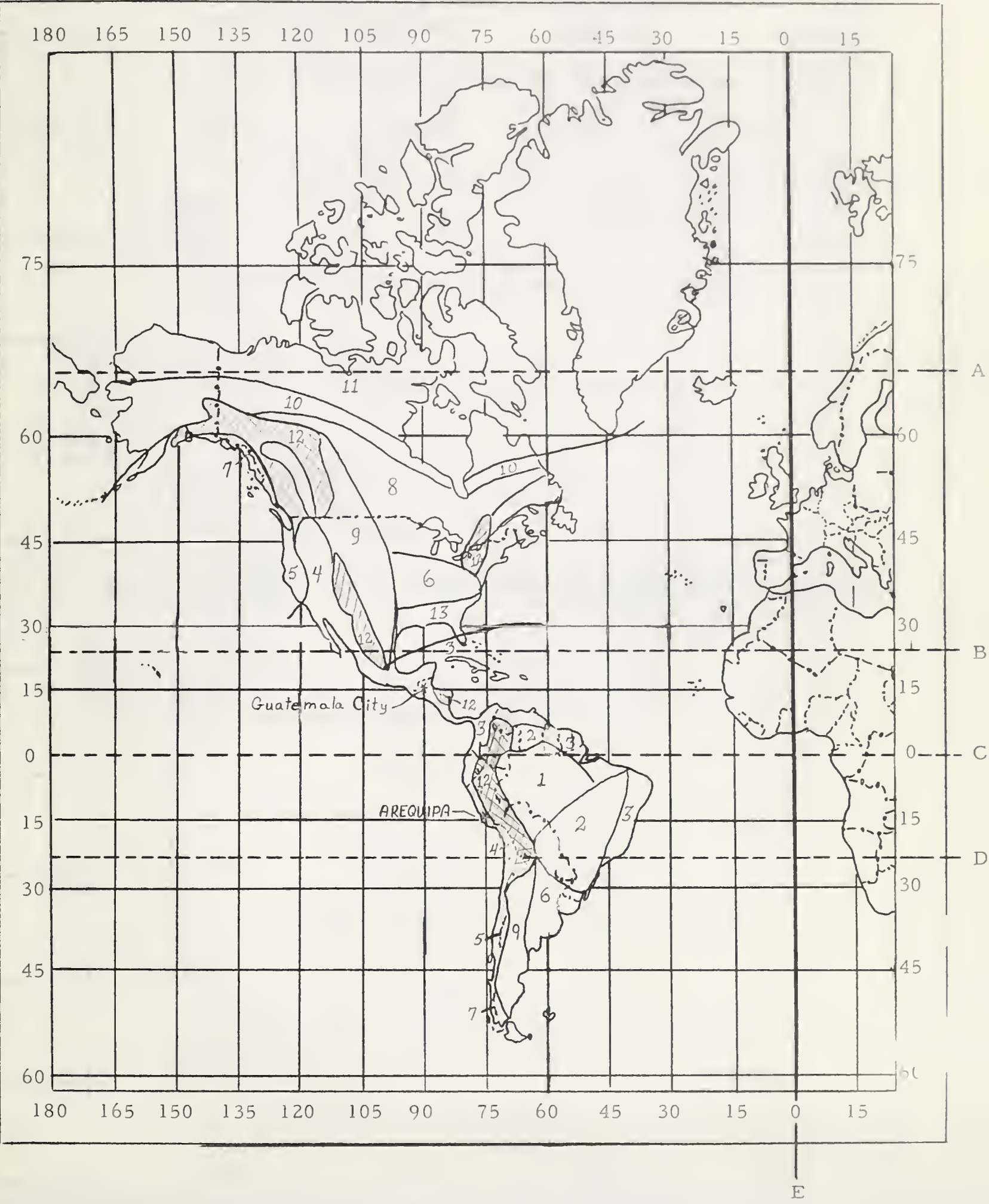
- (g) Give location (longitude and latitude) of Guatemala City.

- (h) Santiago, Chile, is located in the area numbered _____
- (i) Winnipeg, Manitoba, is located in the area numbered _____

The map shows the approximate areas of characteristics climatic regions. The names of the regions are listed below. Opposite the name of the region place the NUMBER of the corresponding region as shown on the map.

- (a) Tundra (_____)
- (b) hot deserts (_____)
- (c) cold forest regions (_____)
- (d) mountainous regions (_____)
- (e) tropical rain forest (_____)
- (f) west coast marine (_____)
- (g) Mediterranean-type climate (_____)
- (h) Savannas (_____)
- (i) Cool humid continental lands (_____)
- (j) Arid and semi-arid regions (_____)
- (k) warm temperate continental lands (_____)

MAP for question IV.



V. The map shown opposite does not represent any particular area but has been invented to test map reading skills.

Choose the word or letter which best completes the statement correctly and write your choice in the space provided.

1. The area served by the railroad to the west of number 6 is best described as:

lake isthmus peninsula island (_____)

2. What city in Canada would have a climate like city A?

St. John's Vancouver Edmonton Toronto (_____)

3. Which city would likely have the largest population?

A B C D (_____)

4. Which city would likely receive the most rainfall annually?

E B C D (_____)

5. What city or town would most likely be a logging center?

C B D F (_____)

6. What is the approximate distance from town E to town F?

360 miles 150 miles 740 miles 36 miles (_____)

7. Which of these towns would most likely be the center of a farming and ranching community?

A B D E (_____)

8. The area marked by the number 1 is best described as a:

lake bay plateau cape (_____)

9. The area marked by the number 2 is best described as a:

plateau isthmus island delta (_____)

10. The area marked by the number 3 is best described as a:

strait river inlet highway (_____)

11. The area marked by the number 4 is best described as a:

peninsula cove cape isthmus (_____)

12. The area marked by the number 5 is best described as a:

bay delta lake lagoon (_____)

13. The area marked by the number 6 is best described as a:

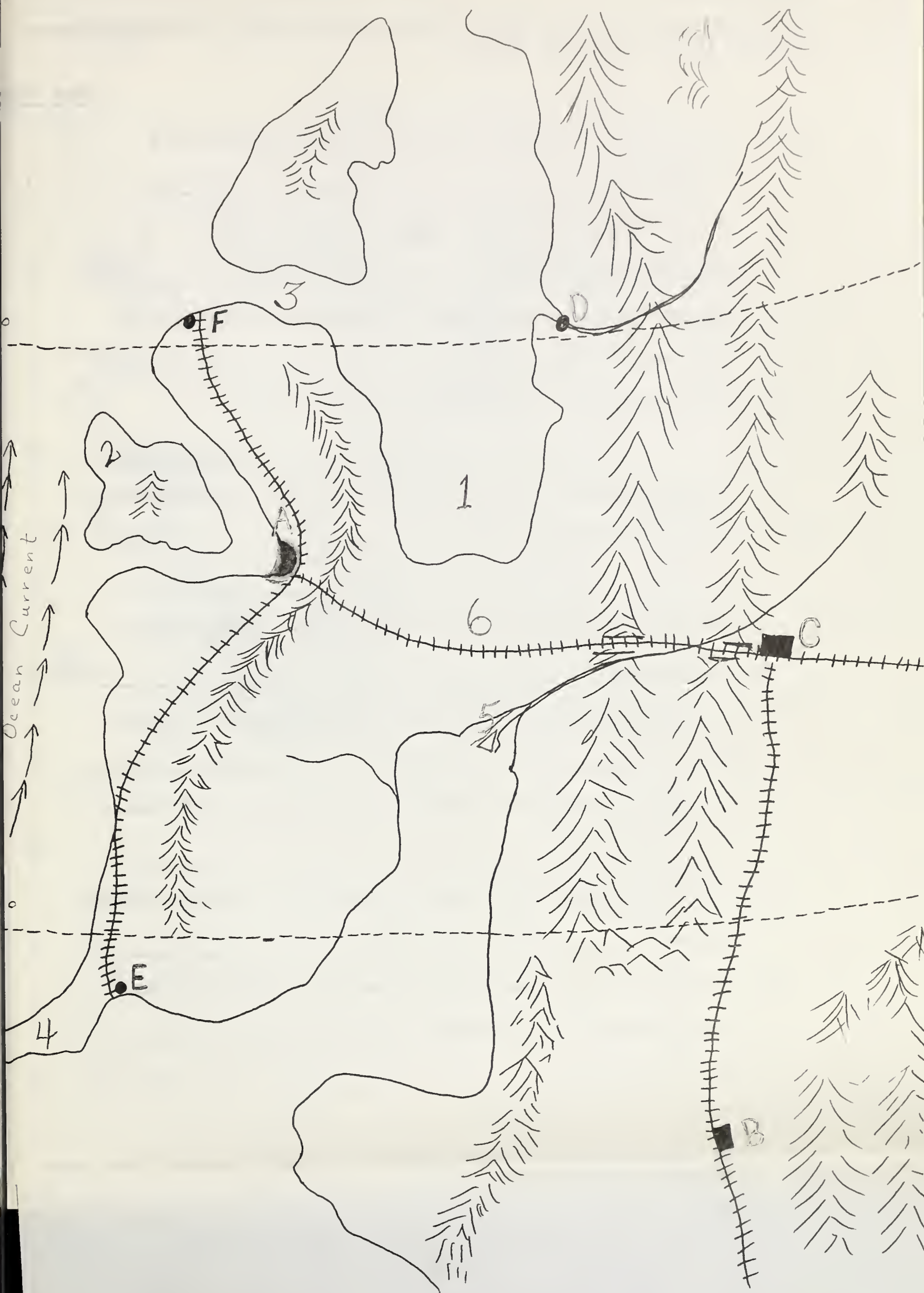
isthmus island reef cape (_____)

14. What center would probably have the warmest average July temperature?

B D E F (_____)

15. What center would probably have the warmest January temperature?

B D E F (_____)



VI. Use World Map

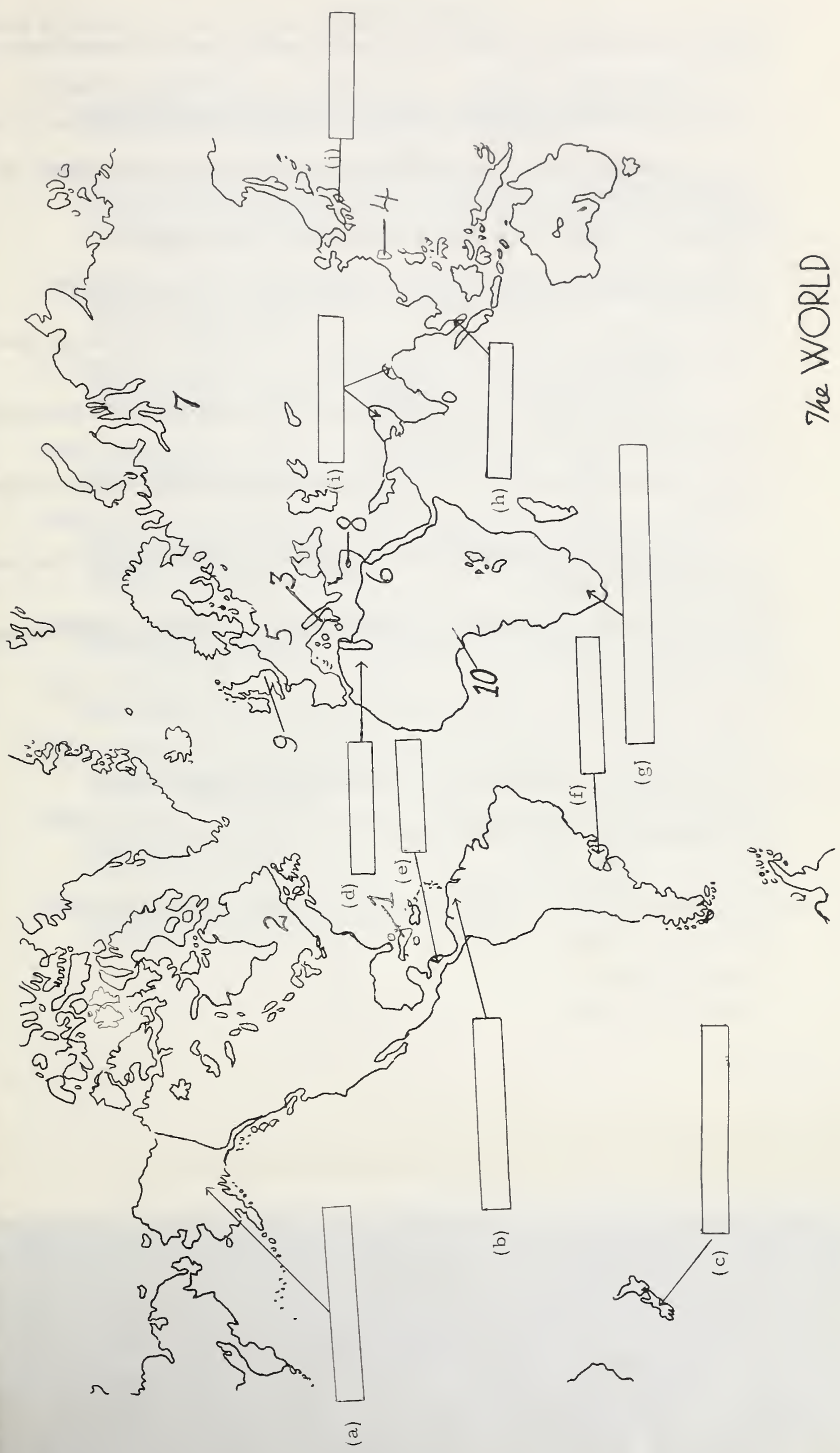
In the first space write the name of the person described. In the second space write the name of his or her country.

Map Num

- | | | | |
|------|-----|---|----|
| A. | 1. | The leader of this country was forced to leave because of a revolution. (_____) (_____) | 1 |
| | 2. | This country's leader made a good will tour to further Commonwealth interests. (_____) (_____) | 2 |
| | 3. | This man is head of the Roman Catholic Church and resides in this country (_____) (_____) | 3 |
| | 4. | This Chinese leader makes his headquarters here (_____) (_____) | 4 |
| (20) | 5. | This man was given the right to rule his country by decree until a new constitution was drawn up. (_____) (_____) | 5 |
| | 6. | The leader of the United Arab Republic makes his headquarters in this country. (_____) (_____) | 6 |
| | 7. | The deputy Premier of this country recently toured the United States. (_____) (_____) | 7 |
| | 8. | A religious leader in this island is advocating union with Greece. (_____) (_____) | 8 |
| | 9. | The official head of this country will open the St. Lawrence Seaway this year. (_____) (_____) | 9 |
| | 10. | The leader of this commonwealth country has added a former French territory to his country (_____) (_____) | 10 |

- B. Fill in the name of the area indicated in the boxes provided. Pay close attention to the arrows.
- (10)

The WORLD



VII. Answer the following questions in complete sentences. No questions should require more than two or three sentences. Think clearly and express your thoughts carefully. You will be marked on clearness of expression and on factual information. Answer ANY FIVE of the following:

1. Why did some of the early settlers of Kentucky feel that it would be better to join with the Spanish colonies to the south rather than the United States to the East?
2. What warning to the nations of Europe was contained in the Monroe Doctrine?
3. Give two reasons why the Spanish colonies in America rebelled after 300 years of Spanish rule.
4. Why was the Ordinance of 1787 a wise piece of legislation?
- (15) 5. Why are there many names of Dutch origin in the New York area?
6. What caused the great migration of Irish to the United States in the years 1845 to 1855?
7. Why did the democratic form of government work better in the United States than in the Latin American Republics?
8. Why did the German and Swedish immigrants settle in the middle-northwestern States?
9. The United States is sometimes referred to as the "melting pot of nations". What does this mean?
10. What is meant by the statement "the 'Cry of Dolores' resounded throughout Spanish America"?

VIII. Write a paragraph, approximately 75 - 100 words in length, on:

Interdependence within a Community

OR

- (10) In a paragraph of 75 - 100 words show the relationship between:
- per capita income
 - natural resources
 - standard of living

(150 Total Value)

BIBLIOGRAPHY

- Alberta Department of Education. Junior High School Curriculum Guide for Social Studies-Language: 1955. Edmonton: A. Shnitka, Queen's Printer.
- Anderson, William Ewart. "An Attempt Through the Use of Experimental Techniques to Determine the Effect of Homework Assignments Upon Scholastic Success," Journal of Educational Research, 40(October, 1946), 141-143.
- Crawford, C. C., and Jacob A. Carmichael. "The Value of Home Study," Elementary School Journal, 38(November, 1937), 194-200.
- Di Napoli, Peter J. "Homework in the New York City Elementary Schools," Teacher's College Record, 39(November, 1937), 157-158.
- Fine, Benjamin. "No More Homework? The Pros and Cons," The Social Studies, 43(April, 1952), 169-171.
- Foran, T. J., and Sister Magdelene Marie Weber. "An Experimental Study of the Relation of Homework to Achievement in Arithmetic," Mathematics Teacher, 32(May, 1939), 212-214.
- Garrett, Henry E. Statistics in Psychology and Education. New York: Longmans, Green and Co., 1958.
- Good, Carter V., and Douglas E. Scates. Methods of Research. New York: Appleton-Century-Crofts Inc., 1954.
- Hunt, Maurice P., and Lawrence E. Metcalf. Teaching High School Social Studies. New York: Harper, 1955.
- Shaul, R. E. "A Study of the Homework Problem in Alberta." Unpublished Master's thesis, The University of Alberta, Edmonton, 1939.
- Steiner, M. A. "Value of Homework Assignments," School and Society, 40(July 7, 1934), 20-24.



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